Chapter 3
Autonomy and Need Satisfaction in Close Relationships: Relationships Motivation Theory

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Among the most important values and motives of people around the world is to feel connected and meaningfully related to others (e.g., La Guardia & Patrick, 2008; Reis, 2011). Yet not all social interactions yield a true sense of relatedness. Although in some social situations people can feel cared for and acknowledged and experience a sense of belongingness, in other situations they can feel isolated or misunderstood, instrumentally used, or in other ways frustrated in their desire of connection or relatedness. It is thus important to distinguish those elements within social interactions, affiliations, and relationships that truly foster a sense of relatedness and connection from those elements and dynamics that thwart that experience.

According to self-determination theory (SDT; Ryan & Deci, 2000), all human beings have a fundamental psychological need to experience *relatedness*—that is, to feel personally accepted by and significant to others, and to feel cared for by others and caring of them (e.g., Deci & Ryan, 2000; Lavigne, Vallerand, & Crevier-Braud, 2011). Although some theories view relationship motivation as derived from other instrumental outcomes such as drive gratifications (e.g., Freud, 1925), physical security (Bowlby, 1969), or resource exchanges (Thibaut & Kelley, 1959), SDT posits that relatedness is an evolved psychological need in its own right, which, although associated with adaptive advantages, takes on an intrinsic character in human nature. That is, people find relatedness to be inherently satisfying, independent of instrumental advantages. Indeed, individuals often value and maintain connections that afford a sense of relatedness to their distinct material disadvantage.

A basic or inherent need for relatedness thus underlies people's motivated tendencies to make interpersonal contacts, and to adopt identities and join groups that socially connect them with others. The concept of a *need*, however, is distinct from that of motivation. People can fail to be motivated for that which they actually need. Thus the idea of a relatedness need goes beyond the suggestion that relatedness

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is something merely preferred, desired, or considered important, for SDT argues that relatedness is essential to human wellness. That is, people require relatedness to be vital and to thrive. Even people who say and, indeed, believe, that they do not want to connect with others will nonetheless suffer ill effects if they do not experience relatedness or belonging. Similarly, even within organizations or cultures that do not give primacy to relatedness and collectivity, people suffer if they lack a sense of relatedness (e.g., Ryan, Bernstein, & Brown, 2010). Human nature thus declares interpersonal relatedness to have primacy, and families, institutions, and cultures must provide the pathways for this need to be satisfied if their constituents are to be well.

SDT is not the only psychological theory to emphasize that belonging and feeling personally close to others promote human flourishing. In social psychology for example, a number of researchers have vigorously investigated a wide range of phenomena among people who are personally close, finding many benefits that accrue from acceptance and interpersonal support (e.g., Baumeister & Leary, 1995; Shaver & Mikulincer, 2011). Clinicians in the object relations theoretical tradition have written extensively about the necessity of close relationships, initially with primary caregivers but also with peers as individuals progress through the lifespan (e.g., Winnicott, 1965). Even in research with nonhumans, Harlow (1958) showed convincingly that close personal contact was necessary for healthy development among rhesus monkeys. These as well as various other researchers have accepted, either implicitly or explicitly, that relatedness or belongingness is a fundamental psychological need, although few contemporary empirical approaches have made the concept of need a central concept within their theorizing.

SDT and Basic Psychological Needs

SDT is a contemporary, research-based psychological theory that has specified, highlighted, and emphasized the importance of the concept of universal psychological needs in order to make predictions and provide interpretations of empirical phenomena (e.g., Deci & Ryan, 2000; Ryan, 1995). As we will discuss below, SDT posits three basic psychological needs—competence and autonomy, in addition to relatedness. In general, a central prediction made by the theory is that, when people experience greater satisfaction of the relatedness need, they will evidence higher levels of psychological wellness; whereas when satisfaction of this need has been thwarted, they will display signs of ill-being (e.g., Bartholomew, Ntoumanis, Ryan, Bosch, & Thogersen-Ntoumani, 2011). SDT's need theory thus supplies a dynamic model, because it suggests both that needs explain behavior and outcomes independently of conscious expectancies and values, and moreover that people respond predictably when needs are satisfied versus thwarted. As we will see in what follows, numerous phenomena can also be interpreted in ways that are derived from and are congruent with this general proposition.

Different Definitions of Needs

Although the concept of psychological needs appears in several theories within social-personality psychology (e.g., McClelland, 1985; Murray, 1938), most researchers treat the concept as an individual difference variable, reflecting the varying strengths of individuals' motives. In other words, assessment of a need provides an index of how important or strong that desire or attribute is for the person. In personality psychology, for example, the need for achievement (Atkinson, 1958) and the need for intimacy (McAdams, 1989) are assessed for individuals and then used to predict behaviors, affects, and outcomes in the corresponding domains. In social psychology, needs such as the *need for cognition* (Cacioppo, Petty, & Kao, 1984) and the *need for closure* (Webster & Kruglanski, 1994) are used to make predictions, often in conjunction with experimental manipulations concerning whether being high versus low on the strength of some need moderates various outcomes.

In SDT, in contrast, our primary concern is the main effects. SDT has specified fundamental psychological needs for relatedness, competence, and autonomy, and proposed that satisfaction of each of these psychological needs is necessary in an ongoing way for people to function optimally and to display a high level of psychological health, regardless of individual differences in motives or preferences. *Competence* refers to feeling effective and confident with respect to some behavior or goal (e.g., White, 1959), and *autonomy* concerns the feeling of volition, willingness, concurrence, and choice with respect to a behavior or experience one is engaged in (e.g., de Charms, 1968). SDT proposes that if satisfaction of any of the three psychological needs is deprived or thwarted, some type of negative consequence will ensue.

SDT does recognize individual differences in motives related to these basic psychological needs, as well as in motivational orientations (Deci & Ryan, 1985; Weinstein, Przybylski, & Ryan, 2012b), but it suggests nonetheless that the most important predictors of psychological health, well-being, and social functioning are variables assessing need satisfaction versus thwarting. In fact, SDT sees differences in need strength or importance as often being reflective of dynamic reactions, or attempts to cope with, past need deprivation or thwarting.

SDT further highlights that under optimal conditions there are positive interrelations among the three basic needs. At the general level, people who get one of these needs well satisfied often also get the others satisfied. For example, if people were afforded opportunities for autonomy, they would more likely feel psychologically free and able to find or create opportunities to also get their needs for relatedness and competence satisfied. Reciprocally, if they felt deep satisfaction of their relatedness need through connections with accepting others, they would likely experience the interpersonal support necessary to take risks and enact their own autonomous motives. Indeed, it is thus the case that correlations among satisfaction of the three needs, at the global or general level, across situations is relatively and expectably high.

Relationships Motivation Theory (RMT)

RMT is one of the six mini-theories contained within SDT. Its central proposition is that, although satisfaction of the need for relatedness predicts people's experiences of relationship satisfaction or relational well-being, relatedness need satisfaction alone is not enough to ensure high-quality relationships. Flourishing relationships also require that people experience satisfaction of the need for autonomy, as well as the need for competence, within the relationships. Indeed, research has shown that satisfaction of the latter two needs also contribute independently to positive relationship outcomes (e.g., La Guardia, Ryan, Couchman, & Deci, 2000). In other words, the theory, as well as the data, suggest that all three of these basic psychological needs, which are essential for optimal wellness and flourishing and which mutually support one another, must be satisfied in order for people to experience the highest quality close relationships.

Need Satisfaction, Well-Being, and Relationship Outcomes

Experience sampling studies in which participants recorded the degree to which they experienced satisfaction of each of the basic psychological needs have demonstrated strong relations among the three basic need satisfactions, and between these satisfactions and wellness. For example, in a daily dairy study of students, Reis, Sheldon, Gable, Roscoe, and Ryan (2000) used a multi-level modeling strategy to confirm the SDT hypothesis that, at both the between-person (i.e., individual-difference) and within-person (i.e., across-time) levels of analysis, satisfaction of each of the three basic needs predicted independent variance in people's psychological wellness. In other words, people who in general felt more satisfaction of each of the three needs (i.e., the between-person level) also felt more psychological well-being. Further, on any given day, the amount of satisfaction people felt for each need independently contributed to well-being on that day (controlling for well-being on the prior day).

More recently, Ryan et al. (2010) assessed the three basic need satisfactions multiple times a day in a heterogeneous sample of adult workers. Similar to Reis et al. (2000) they found that each of the needs was independently associated with variations in wellness, measured with multiple variables, including variables tapping positive and negative affect, vitality, and physical symptoms. There was also a large and predicted "weekend effect," in which workers on average had substantially higher physical and psychological wellness on weekends. This effect was fully mediated by the needs for autonomy and relatedness. Indeed, the multiple daily assessments revealed that it was largely in their work environments that people felt thwarted in their autonomy and relatedness, which in turn negatively affected wellness. In workplaces where relatedness was higher, wellness was higher, and for those workers the weekend effect was less pronounced. One implication of this study for organizations was the high costs in terms of daily employee wellness of low workplace relatedness.

Satisfaction of each need is also important within close relationships. Patrick, Knee, Canavello, and Lonsbury (2007) did a group of studies in which they assessed participants' satisfaction of each of the basic psychological needs within a close relationship. They found that each need contributed to all of the important outcomes they examined, including personal well-being, relationship quality, and effectively managing conflict within the relationship. In one of the studies these investigators also showed that if an individual's partner were feeling greater satisfaction of the basic psychological needs, this also independently contributed to the individual perceiving the relationship to be of greater quality.

Need Satisfaction and Attachment Security

Ainsworth and colleagues (e.g., Ainsworth, Blehar, Waters, & Wall, 1978) developed a paradigm for empirically studying the concept of attachment (Bowlby, 1969) between infants and their caregivers. Considerable research has shown that when caregivers are sensitive and responsive, infants and caregivers develop more secure attachments, evidenced in part by the infants being engaged and interested even when the caregivers are absent. These secure attachments are considered to be the basis for what are called *working models* (e.g., Bretherton, 1987), which implies that, as individuals grow up, their experience of others (e.g., romantic partners and best friends) will tend to mirror the attachments they developed with their primary caregiver. In other words, attachment security is considered an individual difference aspect of people's personalities, which then get applied in future close relationships, especially romantic relationships (e.g., Shaver & Mikulincer, 2011).

Research by La Guardia et al. (2000) investigated the attachment security of young adults across multiple partners. They began by examining the degree to which attachment security is in fact consistent across relationships. In three studies, analyses indicated that about one-third of the variance in attachment security was at the between-person level, suggesting that attachment security is, to this extent, an individual difference, and providing support for the working-model aspect of attachment theory. Yet, the finding also means that a preponderance of variance is not accounted for at the individual-difference level, but varies within person. La Guardia et al. argued that this within-person variance across relationships is a function of the basic need-related dynamics between the person and each of his or her partners. Specifically, the researchers suggested that people experience different levels of basic psychological need satisfaction in their interactions with different relational partners, and that the level of need satisfaction a person experiences with a particular partner should predict the person's security of attachment with that partner. La Guardia et al. found that, indeed, within each close relationship, the need satisfaction that was unique to that partner also predicted the unique security of attachment with that partner.

Of the three needs, satisfaction of the relatedness need explained the greatest amount of within-person variance in attachment security, which of course makes sense, and is essentially tautological. Thus, La Guardia et al. controlled for relatedness

satisfaction and found that autonomy satisfaction remained a significant and, moreover, substantial predictor of attachment security for every relationship type, including parental and peer. Further, competence satisfaction also predicted security of attachment, although, as expected, that relation was somewhat weaker.

Summary

A growing number of studies, only some of which were reviewed here, have indicated that when people experience satisfaction of autonomy and competence needs within relationships, they experience higher quality relationships, including a more secure sense of attachment, as well as greater psychological well-being. These results hold up at the general, between-person level, as well as at the within-person level when considering individuals' experiences across days and also across partners. They also hold up across varied ages and cultural groups. Such results both attest to the interdependence of basic psychological needs and to the notion that relatedness satisfaction is a product of only certain relationships, namely those that beyond being warm and positive also convey respect and support for autonomy.

Autonomous Motivation for Being in a Close Relationship

We have frequently argued that when people are autonomously motivated in some situation or for a particular behavior or class of behaviors, they will typically feel satisfaction of all three of the basic psychological needs, because autonomous motivation yields direct satisfaction of the autonomy need and provides people the psychological freedom to find satisfaction of the relatedness and competence needs for themselves. Accordingly, we have hypothesized that when people enter, commit to, and persist at close relationships autonomously they will likely experience the relationships to be of higher quality than when their motivation for the relationship is more controlled.

Both questionnaire and experimental studies have tested this hypothesis. In the first such study, Blais, Sabourin, Boucher, and Vallerand (1990) examined married or cohabiting couples, assessing the degree to which their reasons for maintaining their relationships were more versus less autonomous. The results indicated that the more autonomous the partners' motivation for maintaining the relationship, the greater was the relationship satisfaction and dyadic adjustment. A structural model indicated that when the partners were more autonomous, they experienced more positive relational behaviors, which led to greater personal happiness and satisfaction in the dyad.

In other research Knee, Lonsbury, Canevello, and Patrick (2005) showed that, when partners who were more autonomously motivated to be in their relationships encountered a disagreement, they were less defensive and more understanding of their partners' point of view. The research showed not only that a target person's

autonomy predicts his or her being more effective in handling relationship conflict, but also when the target person's partner was more autonomously motivated for the relationship, the target person handled the conflict in an even more effective, non-defensive way. Gaine and La Guardia (2009) further found that if they assessed individuals' autonomous motivation for specific relational behaviors, in addition to autonomous motivation for being in the relationship more generally, the relationship-specific autonomy explained additional variance in relationship well-being.

Recent work by Niemiec and Deci (2014) used an experimental paradigm to examine the importance of autonomous motivation in developing relationships between new acquaintances. In one such study, autonomous versus controlled motivation was primed within pairs of participants who did not know each other, using the scrambled-sentence priming method. Then, the two participants spent their time mutually self-disclosing to the other and in so doing developing a "new relationship." The researchers found that the pairs who were primed with autonomous motivation felt more satisfaction within their new relationship, more positive affect, more relatedness need satisfaction, and greater well-being than was the case for the pairs that were primed with controlled motivation. Because, in this study, the type of motivation was manipulated experimentally rather than simply assessed with a questionnaire format, the results allowed for a causal interpretation. In other words, this study showed that autonomous, relative to controlled, motivation promoted higher-quality, more-satisfying interactions with the acquaintances, which likely also means that it would facilitate longer-term relationships as well.

Another study also primed autonomous and controlled motivation among participants who had not known each other but were working together on creative activities (Weinstein, Hodgins, & Ryan, 2010). In this study trained observers rated videotaped interactions of partners working together on creative tasks. Results indicated that the autonomously primed pairs were more attuned to one another both emotionally and cognitively, and were more encouraging and empathic with one another than was the case with pairs who were primed with controlled motivation. The autonomous pairs, relative to the controlled pairs, were also more effective in doing the activities and reported greater closeness with each other.

To summarize, several studies, including experiments, have confirmed that when people are more autonomously engaged in relationships, they experience greater relationship satisfaction and well-being, a phenomenon that applies across both close relationships and new encounters.

When Social Contexts Support Need Satisfaction

We have thus far seen that when people were either autonomously motivated for a relationship or felt satisfaction of their basic psychological needs within a relationship they evidenced various positive outcomes, including greater relationship satisfaction and positive affect, in addition to enhanced psychological wellness. It was a logical extension to hypothesize that, when others provided target individuals

with autonomy support or, more broadly, support for satisfaction of all of the basic psychological needs, the individuals would experience both personal and relational well-being, because numerous studies have confirmed that autonomy-supportive and need-supportive interpersonal contexts enhance autonomous motivation and basic-need satisfaction (see, e.g., Deci & Ryan, 2000; Ryan & Deci, 2008 for reviews). These studies have been of two sorts: some have examined developmental trends of children becoming more autonomous or more stably need satisfied as a function of need support, and some have examined concurrent need support relating to more autonomous motivation and more basic need satisfaction in a current situation.

Developmental research has shown for example that, when children grow up in social environments that are supportive of basic psychological needs, they tend not only to have more secure and satisfying relationships with parents but they also tend to become more autonomously motivated for many tasks and activities in their lives. Their intrinsic motivation tends to be maintained or enhanced over time (see, Deci & Ryan, 1980) and they tend to more fully internalize extrinsic motivation (Grolnick & Ryan, 1989) thus acting more autonomously even for uninteresting activities that are deemed important for their development and effectiveness.

Typically, social contexts have one or more key individuals within them, often in a position of authority. For example, social contexts in youth sports have coaches as the key authorities; social contexts in schools have teachers; and the contexts in homes have parents as authorities. For social contexts to be need-supportive for the target persons who are acting within them (e.g., athletes, students, or children) the authorities can best begin by appreciating and acknowledging the perspectives and frame of reference of those they would motivate at times of both setbacks and successes. These contexts also involve the authorities providing support for trying new things and making choices, providing warmth and respect, providing rationales when asking target individuals to do something, and refraining from using controlling language and controlling rewards or threats of punishment.

Much research has shown that, within these need-supportive interpersonal environments, individuals tend to become more autonomously motivated (e.g., Grolnick & Ryan, 1987; Niemiec, Lynch, Vansteenkiste, Bernstein, Deci, & Ryan, 2006; Roth, Assor, Niemiec, Ryan, & Deci, 2009). Need-supportive environments have been found to not only facilitate autonomous motivation, but also to foster, in turn, more effective performance and well-being (e.g., Deci, Eghrari, Patrick, & Leone, 1994; Vansteenkiste, Simons, Lens, Sheldon, & Deci, 2004). Further, studies have shown that, in current situations such as schools or workplaces, when the environment is autonomy supportive, people report higher levels of psychological need satisfaction, which has positive links to engagement, performance, and psychological well-being (Baard, Deci, & Ryan, 2004; Deci, Ryan, Gagné, Leone, Usunov, & Kornazheva, 2001).

Need Support in Peer Relationships

Recent studies of peer relationships have shown that when one person receives need support from a partner, the person will also evidence various benefits such as

increased autonomy, more personal well-being, and greater relationship satisfaction. The difference between these studies and the need-support studies discussed in the previous few paragraphs is that these studies involve relationships that do not have differentials in authority (at least structurally) but instead involve two people who, by the nature of their relationships, are more equal or mutual in their interactions.

In one program of research, Ryan, La Guardia, Solky-Butzel, Chirkov, and Kim (2005) examined the interpersonal phenomenon of people turning to others to share experiences or gain support when they were having strong emotional experiences, whether positive or negative. Some of the studies examined *emotional reliance* as an individual difference—that is, they explored whether individuals who were more likely to turn to others during emotional experiences would show positive benefits relative to individuals who were less likely to rely on others. In fact, the research did indicate that those who were more inclined to volitionally depend on others did show less anxiety and depression and more vitality, suggesting that, when people feel they can turn to close friends, romantic partners, and family members during very moving emotional times, they tend generally to be psychologically healthier. Thus, this finding represents an example of how being independent of others, which is often touted in our culture as being an important indicator of well-being, is not as important as some have argued (e.g., Steinberg & Silverberg, 1986) and is not a basic need. Indeed, being volitionally dependent on one's close relational partners seems to be a meaningful antecedent of optimal psychological functioning, which would also, of course, involve some amount of volitional independence.

Some of the studies done by Ryan et al. (2005) followed up on the above by examining mediation of the positive relations between emotional reliance and psychological wellness. Specifically, the researchers hypothesized that the reason emotional reliance is a positive predictor of well-being is that people tend to experience need satisfaction when they are willingly relying on others—that is, they will tend to feel close and cared for, to feel volitional, and to feel support for their own competence in relation to the situation. Indeed, the results of the research indicated that basic need satisfaction mediated the relation between emotional reliance and psychological well-being. That is, emotional reliance led significantly to basic need support, which in turn led significantly to more well-being and less ill-being.

Importantly, other studies in the Ryan et al. (2005) research program investigated emotional reliance in terms not of individual differences but rather in terms of whom people tended to rely on when they were emotionally charged. That is, the researchers hypothesized and found that people had multiple important relationships but that they emotionally relied on their different relational partners to differing degrees. For example, in one study the researchers assessed the degree to which college students relied on their mothers or fathers, and they found that, although in general students tended to rely more on mothers in times of emotional upheaval, reliance on either of their parents was a function of that parent's perceived need supportiveness. The researchers also examined people's reliance on best friends and romantic partners, and as with parents, the findings showed that people were likely to rely on such others during times of upset, conflict, or elation, but only to the degree that each of those relational partners provided need support. In a final study, Ryan et al. collected data in Russia, Korea, Turkey, and the United States and found

that the measure of emotional reliance was psychometrically comparable across cultures. Further, although the amount of emotional reliance people reported varied somewhat from culture to culture, emotional reliance was associated with greater well-being across the countries. In short, volitionally turning to close others when people are experiencing strong emotions, especially turning to those close others who tend to be supportive of their psychological needs, appears to be important for well-being across cultures.

In short, theses studies indicated that people benefited from turning to others when they were having strong emotions and that the others to whom they were most likely to turn were those people in their lives who, in general, provided the most basic psychological need support.

Extending cross-cultural research in this area, Lynch, La Guardia, and Ryan (2009) did a study of within-person differences in relationship quality that involved samples from China, the U.S., and Russia. They predicted and found that across all three nations people reported their highest relationship quality as occurring with the social partners whom they experienced as most autonomy supportive. Moreover across countries they reported being more authentic with autonomy-supportive others, and as being able, themselves, to act more in accord with their own ideal ways of being. In other words, the quality of relationships was a function of autonomy support, and people saw themselves as functioning most optimally when they were with others who were autonomy supportive.

Experiments on Autonomy Support in Close Relationships

Niemiec and Deci (2014) did a series of experiments examining how support for autonomy or lack thereof would affect people's experiences of interaction quality when they engaged in a mutual self-disclosure activity (Aron, Melinat, Aron, Vallone, & Bator, 1997). In these studies participants interacted with an experimental accomplice who posed as a second participant, and support versus deprivation of autonomy was manipulated by introducing one of the various experimental induction that had previously been shown to either decrease or enhance autonomy. Specifically, in two experiments, the participant was paid for engaging in the self-disclosure activity and in one the participant was induced to be ego-involved in the activity. Both of these manipulations had been shown previously to diminish people's autonomy (Deci, Koestner, & Ryan, 1999; Ryan, 1982). In yet another experiment participants were given an autonomy-supportive induction, in which choice was provided and their feelings were acknowledged (Deci et al., 1994).

In the studies in which a true participant was paid for interacting with the other "participant," the participants reported finding the interaction *per se* less satisfying, being less emotionally reliant on the other, and having less positive affect than the control-group participants who were not paid. In one of the studies that included a behavioral measure, the paid participants also displayed less behavioral closeness with the partner. In the study of ego-involvement the pattern of results was very similar to that from the reward studies. Finally, in the experiment in which

autonomy support was provided, participants reported finding the interaction to be of higher quality than the participants in the control group.

To summarize, in four experiments, when participants' autonomy was manipulated with contextual inductions, those inductions that had previously been found to decrease autonomy were found to lead to the experience of lower-quality interactions, whereas inductions that had previously been found to enhance autonomy led to higher quality interpersonal interactions.

Mutuality in Relationships

Relationships involving close friends and romantic partners tend to be characterized by consent and mutuality, lacking in the element of authority differentials that are present in so many relationships in life. Yet friends too can be more or less need supportive toward each other; they can be more or less controlling (vs. autonomy supportive), more or less cold or rejecting (vs. relationally supportive), more or less critical, negative, or condescending (vs. competence supportive). Friendship quality, then, is a function not only of the experienced support with the relationship but also by the characteristic mutuality of support and caring that defines close friendships.

Two studies by Deci, La Guardia, Moller, Scheiner, and Ryan (2006) with best-friend pairs focused on the amount of autonomy support that each partner provided to the other. Because each partner provided data, it was necessary to use a multi-level approach to analyses, with individuals nested within pairs (Griffin & Gonzales, 1995). First, the analyses showed that the amounts of autonomy support each individual provided to his or her partner was significantly related. This highlights how in close friendships there is mutuality in this type of support; the level that one person provides tends to be mirrored in the level that the other provides. Interestingly, there were several indicators of relationship quality in this research, and analyses also indicated that each of these indicators was also significantly mutual; that is, the partners tended to agree on how healthy and satisfying their friendships tended to be. Further, analyses also showed that the amount of mutuality that the pairs experienced on autonomy support also predicted the amount of mutuality experienced on the various relationship-quality variables.

It was also the case that in this research, analyses at the individual level tended to replicate results of many prior studies showing that the amount of autonomy support that an individual received from another person predicted the target individual's relationship satisfaction and general well-being, although, as already mentioned, much of that prior research involved the target individual being in a relationship with an authority figure. In the Deci et al. (2006) research, individuals who perceived more autonomy support from their best friends also reported more relationship satisfaction, attachment security with their partners, emotional reliance on the partners, dyadic adjustment, and inclusion of their friends in their own sense of self. Those analyses were done after controlling for pair-level relations, and the results did apply to each partner individually. Thus, as would be expected, when a person

receives autonomy support from a close friend, the person tends to benefit meaningfully in terms of both relational and individual well-being.

We have seen then that autonomy support was important in relationships for each individual who received it, and we have also seen that there tended to be mutuality in the level of autonomy support as well as the levels of relationship-quality indicators. What we have not yet seen is whether the degree of mutuality in autonomy support would predict the level of relationship quality and well-being; that is whether individuals' giving autonomy support to their partners helps those who give it beyond the help they get from receiving autonomy support from the friends. If it did, it would mean that both giving and receiving autonomy support had positive effects, thus confirming the importance of mutuality in friendships.

Deci et al. (2006) addressed this question using structural equation modeling in which both partners were included in the model, with four independent variables and two dependent variables. The autonomy support received by the first person and the autonomy support given by that same person were used to predict a relationship quality indicator as that person perceived it, and further the autonomy support received by the second person and the autonomy support given by that person were used to predict the same dependent variable but this time as the second person perceived it. Finally, each of the four independent variables was linked to one another within the model. As for results, both giving and receiving autonomy support for each partner correspondingly predicted basic psychological need satisfaction for each, thus confirming that giving as well as receiving autonomy support was need satisfying for people. Then, when the relationship-quality variables were examined, both the giving and receiving of each partner predicted each of those outcome variables. Thus, it is clear that mutuality of autonomy support in close relationships does signify that the relationships will be experienced as high quality. Additionally, psychological well-being was used as an outcome variable in this same type of analysis, and it was interesting that the giving of autonomy support was more strongly linked to well-being than was receiving autonomy support when the two variables competed for variance.

As a final set of analyses, Deci et al. separated dyads consisting of two females from those consisting of two males. This allowed the researchers to analyze female and male data separately to determine whether giving and receiving autonomy support is important for both genders. The data confirmed that the giving and receiving of autonomy support were both significant predictors of relationship quality whether the dyads consisted of males or females. This indicated that autonomy and relatedness are not antagonist for either males or females within relationships; rather, high-quality relationships for each gender require autonomy to be present within the relationship, in a mutual way, which is facilitated by each partner giving as well as receiving autonomy support.

Turning Autonomy and Relatedness Against Each Other

Considerable research has shown that satisfaction of all three psychological needs is necessary for psychological health and well-being; that optimal relationships

require all three needs to be satisfied; and that autonomy and relatedness, rather than being inherently antagonist, are instead quite complimentary. Nonetheless, other research has shown that it is possible for social environments to be structured in ways that turn the needs against each other. In particular, the autonomy and relatedness needs, although inherently synergistic, have been found to be antagonistic under conditions with various interpersonal elements. One example of this that has been explored in several studies is the commonly used socializing practice of parental conditional regard (Assor, Roth, & Deci, 2004). *Conditional regard* involves parents providing additional love, attention, and approval when their children do as the parents want, and withdrawing love, attention, and approval when the children do not. This approach is derived from the behaviorist tradition in that the provision of additional attention and affection is considered a reinforcer, the withdrawal of those elements is a punishment, and the avoidance of the withdrawal would serve as a negative reinforcement. Yet, one could also view both the provision and withdrawal of these interpersonal rewards as subtle forms of control, because the message is essentially that, to receive the "reward" of attention and affection, the children would have to do what their parents value or support, regardless of their own feelings of volition. Simply stated, to get relatedness from their parents, the children have to relinquish their autonomy.

In one of the first SDT studies of parental conditional regard (PCR), Assor et al. found that when college students perceived their parents as having been conditionally regarding, the students did engage in the behaviors that were instrumental to the PCR, but the behavioral engagement was controlled—that is, it was regulated by introjects—and the students felt little sense of choice about doing the behavior. Further, the students felt only short-lived positive affect when they succeeded but felt longer-lived guilt and shame when they failed. They also evidenced contingent, unstable self-esteem. Interestingly, another study showed that the use of PCR was generationally transmitted. That is, evidence showed that mothers who themselves paid costs for their parents' conditional regard nonetheless tended to use that same socializing strategy with their own children.

Even more interestingly, Assor et al. found that the more the parents of the college students used PCR, the more their children felt rejected by the parents and the more resentful they were toward their parents. In other words, the use of PCR not only had negative effects on the children's well-being, but it also had unfortunate consequences for the parent-child relationships. A follow up study by Roth et al. (2009) showed further that PCR interfered with children's emotional self-regulation. Whereas autonomy supportive parenting led to integrated regulation within their children, PCR led to a mix of suppression and dysregulation of the emotions. That is, when the children experienced PCR, they attempted to suppress the emotions to get the parents' affection, but the emotions tended to leak out in unregulated ways.

PCR and Close Relationships

Together these initial studies suggested that parental conditional regard tended to have negative consequences for close personal relationships, which led Moller,

Roth, Niemiec, and Deci (2014) to perform a series of studies in which they related the degree of conditional regard used by the parents of college students to the degree that the students perceived their best friends and romantic partners as conditionally regarding. The general expectation was that the level of conditional regard of each parent would relate significantly negatively to the children's relationship satisfaction with that parent and perhaps with others close relationships as well, and also that these relations between PCR and relationship satisfaction would be mediated by within-relationship need satisfaction. In a first study Moller et al. found that students' perceptions of their mothers' conditional regard was negatively related to the students' relationship satisfaction and security of attachment with their mothers, and that both of these relations were mediated by need satisfaction with the mothers. A very similar set of relations was found for fathers. Even more important for our current discussion, both mothers' and fathers' conditional regard negatively predicted relationship satisfaction and security of attachment with the students' romantic partners, and these relations were mediated by the students' within-relationship need satisfaction with their romantic partners.

The next study in the Moller et al. series examined this issue at the between- and within-person levels of analysis with students' perceptions of the degrees to which their mothers, fathers, best friends, and romantic partners were conditionally regarding of them. First, analyses indicated that the correlation of perceived conditional regard for each of the six pairs of partners (e.g., mom and best friend, romantic partner and dad, etc.) was significantly positive, with the lowest being .26 between best friends and romantic partners and the highest being .63 between moms and dads. Second, using multi-level modeling, analyses showed at the between-person (i.e., individual difference) level that, in general, perceptions of parental conditional regard negatively predicted security of attachment within the peer relationships. That is, when young-adult children viewed their parents as more conditionally regarding, they also tended to have peer relationships that were lower in security of attachment. At the within-person level, both the students' experiences of receiving conditional regard from their peer partners, and also the students' experiences of relationship-specific satisfaction of the basic psychological needs with these partners, predicted security of attachment with the partners.

The primary message from these studies was that young adults who perceived their parents as having been conditionally regarding of them while they were growing up tended also to perceive both their best friends and their romantic partners as being conditionally regarding. These findings raise two interesting questions. First, might these young adults have selected best friends and romantic partners who reminded them of their parents in that their relational partners were similarly conditionally regarding? Second, might these young adults have internalized from their parents the mental representation that close others are conditionally regarding of them and then essentially projected that representation onto their two closest peers? Two more studies in the Moller et al. (2014) series addressed these issues, recognizing that the answer might be both.

In the first of the studies, participants were assessed regarding the conditional regard they get from their mothers, fathers, and romantic partners, as well as their

security of attachment to each of these important others, their need satisfaction with each, and other relevant variables. The romantic partners also completed questionnaires assessing the degree to which they were conditionally regarding of their participant partners. Notably, participants' perceptions of their parents being conditionally regarding of them were significantly related to their perceptions of their romantic partners' being conditionally regarding, replicating results from the two previous studies. Most importantly, the target participants' perceptions of each of their parents being conditionally regarding was significantly related to the amount of conditional regard that their romantic partners reported giving to them—the target participants. In other words, the young adults who were the target individuals for this research appeared to have picked romantic partners who were similar to their parents in terms of being conditionally regarding.

In a final study, Moller et al. had participants interact with an experimental accomplice who posed as another participant. The two individuals, who had not known each other, interacted in a mutual self-disclosure activity intended to build closeness in the interaction. Subsequently, the participant completed questionnaires, one of which assessed the degree to which he or she perceived the "partner" (i.e., the experimental accomplice) to be conditionally regarding. Having had no prior interactions with the "partner" and having in the experiment interacted in a very structured way with the "partner" who had been trained to treat all participants the same way, the participants had no basis for knowing the degree to which the "partner" was being conditionally regarding. Hence, the ratings the participants made of the partners being conditionally regarding would have been primarily projections, very likely of the relationships they had with their parents. Results showed that indeed there were significant relations between perceptions of the conditional regard of parents and perceptions of conditional regard of the peer "partners," indicating that the participants were projecting the conditional regard onto the people with whom they were "building a relationship." In sum, results of these last two studies showed that people tend to select romantic partners who are like their own parents in being conditionally regarding, and that they also tend to develop a perceptual bias, projecting conditional regard onto their peer partners if that is what they experienced from parents.

Partners as Objects

Mutuality of autonomy support implies that each partner in a relationship is acting in caring and responsive ways that are respecting of the self of the other. As we have seen, this leads to more satisfying relationships for both partners. Yet many peer relationships do not evidence this mutuality, with one partner (and perhaps both) being either actively or passively aggressive or controlling rather than sensitive and supportive. One partner may be treating the other as an object to be controlled or used. Stated differently, some individuals in relationships relate to their partners not for who they are but for what they possess or represent. Perhaps the first partner has financial

resources and the second partner relates to the first one's wealth rather than to a person who has his or her own needs, emotions, and attributes (e.g., Kasser & Ryan, 1996; McHoskey, 1999). Perhaps the second partner relates to the first as someone over whom he or she can wield power, or as someone whose attractiveness enhances, in the eyes of other people, the second partner's worth (Ryan, Sheldon, Kasser, & Deci, 1996). In all these cases the partner is not intrinsically valued, but instead valued for some instrumental reason.

SDT-based data show in fact that attribution manipulations that have others thinking that one is relating to them for extrinsic reasons lowers their sense of engagement, trust, and interest in relating (e.g., Wild, Enzle, Nix, & Deci, 1997). Furthermore, even when somebody else objectively helps an individual, the individual is not likely to feel good or to appreciate the help unless the other did it willingly or autonomously (Weinstein & Ryan, 2010). That is, people only feel positively related to by others when the others are willingly giving. After all, if someone helps an individual for an extrinsic reason the helper has not conveyed care for the recipient, but instead for a contingent outcome.

RMT similarly hypothesizes that people who place high importance on extrinsic goals such as wealth, fame, and image are more likely to view their partners less as individuals to be related to in a mutual fashion, but instead as instruments for attaining extrinsic goals or aspirations (Kasser & Ryan, 1996). Such relationships would accordingly be more superficial and less deeply satisfying. In fact, research has shown that both holding and attaining strong extrinsic, relative to intrinsic, life goals was associated not only with poorer well-being but also with poorer-quality romantic relationships and less-satisfying friendships (Kasser & Ryan, 2001). Further, individuals' development of stronger extrinsic aspirations has been shown to result from being in relationships with parents and other authority figures who were controlling and rejecting—relationships that essentially treated the individuals as objects rather than developing organisms (Kasser, Ryan, Zax, & Sameroff, 1995; Williams, Cox, Hedberg, & Deci, 2000).

More recently Weinstein, Law, and Ryan (2012a) did a series of studies in which they tested the hypothesis that the salience of extrinsic goals for financial wealth encourages an instrumental orientation toward others, and is negatively associated with seeing others as inherently worthwhile (i.e., with having a valuing orientation). Eight studies using varied methods, both experimental and cross-sectional, yielded evidence supporting this hypothesis, across varied relationship foci including strangers, friends, and romantic partners. These relations of wealth goals to more instrumental or objectifying social orientations suggest again that only when others are non-contingently valued, or cared for in their own right, are interpersonal relationships of the highest quality.

Conclusions

Relationships Motivation Theory, which is one of the six mini-theories of SDT, is concerned with high-quality close relationships. Central to the theory is that, out of a need for relatedness, people will, when fully functioning, seek out contact and

belongingness with others, and attempt to develop intimate relationships. RMT also holds, however, that not all social encounters provide true relationship satisfaction. In fact, considerable research confirms that for social interactions to promote personal and relational well-being, people must experience not only relatedness satisfaction but also autonomy support and autonomy satisfaction within the relationships. As well, competence need satisfaction within relationships also contributes to the quality of the relationships. The more need satisfaction people experience in a relationship the more satisfied they will be with the relationship and the better they will be in dealing with the inevitable conflicts in the relationship.

RMT also proposes and research has found that if people are autonomously motivated to be in relationships, they will experience them as being of higher quality, and if they feel like their partners are supporting their basic psychological needs they will also feel like the relationships are more satisfying. Further, RMT proposes that the highest quality relationships require not only that the people are autonomous and experience autonomy support from their partners, but also that there is mutuality of autonomy and autonomy support within them such that each person not only receives support for the basic needs from his or her partner but also gives need support to the partner. Indeed, research has confirmed that giving as well as receiving autonomy support in a relationship both contribute to the partners' experiencing the relationship as being of high quality.

Further, research has shown that people must experience satisfaction of each of the basic needs within relationships for the relationships to be optimal, and yet the social context—in which a person's partner is often the key element—may turn satisfaction of basic needs against each other. For example, one partner may provide conditional regard to the other, in which case the first partner is essentially conveying that the second partner would have to relinquish autonomy, doing what the first partner wants, in order to receive relatedness, attention, and affection from that first partner. This has been associated with the experience of low quality relationships. Finally, some low quality relationships result from one partner treating the other as an object rather than a person. Such objectification, which is sometimes mutual in relationships, interferes with basic need satisfaction and leaves people with bad feelings about the relationship. For example, when people have high aspirations to be wealthy and attractive, or to be with partners who are wealthy and attractive, those people may be relating to the partners as objects—that is, as the bearers of wealth and beauty—rather than as human beings with their own needs, desires, and inclinations toward mutually satisfying relationships.

A central point of RMT is therefore that there is much more to good, high-quality, relationships than merely warmth or tangible supports. Instead people have a deep need to experience relatedness, or the sense that they are valued and cared for. Relatedness however only results when another cares for and supports one's self. It is when we feel non-contingently valued, or loved for our own sake, and supported in our autonomy, that relatedness is most fulfilled. In contrast instrumental use of others, treating them like objects or vehicles to outcomes, undermines the sense of connection people so naturally desire to feel.

References

Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment*. Hillsdale, NJ: Erlbaum.

Aron, A., Melinat, E., Aron, E. N., Vallone, R. D., & Bator, R. J. (1997). The experimental generation of interpersonal closeness: A procedure and some preliminary findings. *Personality and Social Psychology Bulletin, 23*, 363–377. doi: 10.1177/0146167297234003.

Assor, A., Roth, G., & Deci, E. L. (2004). The emotional costs of perceived parental conditional regard: A self-determination theory analysis. *Journal of Personality, 72*, 47–87. doi: 10.1111/j.0022-3506.2004.00256.x.

Atkinson, J. W. (1958). *Motives in fantasy, action and society*. Princeton, NJ: Van Nostrand.

Baard, P. P., Deci, E. L., & Ryan, R. M. (2004). Intrinsic need satisfaction: A motivational basis of performance and well-being in two work settings. *Journal of Applied Social Psychology, 34*, 2045–2068. doi: 10.1111/j.1559-1816.2004.tb02690.x.

Bartholomew, K. J., Ntoumanis, N., Ryan, R. M., Bosch, J., & Thogersen-Ntoumani, C. (2011). Self-determination theory and diminished functioning: The role of interpersonal control and psychological need thwarting. *Personality and Social Psychology Bulletin, 37*, 1459–1473. doi: 10.1177/0146167211413125.

Baumeister, R., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*, 497–529. doi: 10.1037/0033-2909.117.3.497.

Blais, M. R., Sabourin, S., Boucher, C., & Vallerand, R. (1990). Toward a motivational model of couple happiness. *Journal of Personality and Social Psychology, 59*, 1021–1031. doi: 10.1037/0022-3514.59.5.1021.

Bowlby, J. (1969). *Attachment*. New York: Basic Books.

Bretherton, I. (1987). New perspectives on attachment relations: Security, communication and internal working models. In J. Osofsky (Ed.), *Handbook of infant development* (pp. 1061–1100). New York: Wiley.

Cacioppo, J. T., Petty, R. E., & Kao, C. F. (1984). The efficient assessment of need for cognition. *Journal of Personality Assessment, 48*, 306–307. doi: 10.1207/s15327752jpa4803_13.

de Charms, R. (1968). *Personal causation: The internal affective determinants of behavior*. New York: Academic.

Deci, E. L., Eghrari, H., Patrick, B. C., & Leone, D. R. (1994). Facilitating internalization: The self-determination theory perspective. *Journal of Personality, 62*, 119–142. doi: 10.1111/j.1467-6494.1994.tb00797.x.

Deci, E. L., Koestner, R., & Ryan, R. M. (1999). A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. *Psychological Bulletin, 125*, 627–668. doi: 10.1037/0033-2909.125.6.627.

Deci, E. L., La Guardia, J. G., Moller, A. C., Scheiner, M. J., & Ryan, R. M. (2006). On the benefits of giving as well as receiving autonomy support: Mutuality in close friendships. *Personality and Social Psychology Bulletin, 32*, 313–327. doi: 10.1177/0146167205282148.

Deci, E. L., & Ryan, R. M. (1980). The empirical exploration of intrinsic motivational processes. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 13, pp. 39–80). New York: Academic.

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.

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. doi: 10.1207/S15327965PLI1104_01.

Deci, E. L., Ryan, R. M., Gagné, M., Leone, D. R., Usunov, J., & Kornazheva, B. P. (2001). Need satisfaction, motivation, and well-being in the work organizations of a former Eastern Bloc country. *Personality and Social Psychology Bulletin, 27*, 930–942. doi: 10.1177/0146167201278002.

Freud, S. (1925). Instincts and their vicissitudes. In *Collected papers* (Vol. 4, pp. 60–83). London: Hogarth. (Originally published in 1915).

Gaine, G. S., & La Guardia, J. G. (2009). The unique contributions of motivations to maintain a relationships and motivations toward relational activities to relationship well-being. *Motivation and Emotion, 33*, 184–202. doi: 10.1007/s11031-009-9120-x.

Griffin, D., & Gonzales, R. (1995). Correlational analysis of dyad-level data in the exchangeable case. *Psychological Bulletin, 118*, 430–439. doi: 10.1037/0033-2909.118.3.430.

Grolnick, W. S., & Ryan, R. M. (1987). Autonomy in children's learning: An experimental and individual difference investigation. *Journal of Personality and Social Psychology, 52*, 890–898. doi: 10.1037/0022-3514.52.5.890.

Grolnick, W. S., & Ryan, R. M. (1989). Parent styles associated with children's self-regulation and competence in school. *Journal of Educational Psychology, 81*, 143–154. doi: 10.1037/0022-0663.81.2.143.

Harlow, H. F. (1958). The nature of love. *American Psychologist, 13*, 673–685. doi: 10.1037/h0047884.

Kasser, T., & Ryan, R. M. (1996). Further examining the American dream: Differential correlates of intrinsic and extrinsic goals. *Personality and Social Psychology Bulletin, 22*, 80–87. doi: 10.1177/0146167296223006.

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. M. Sheldon (Eds.), *Life goals and well-being: Towards a positive psychology of human striving* (pp. 115–129). Goettingen, Germany: Hogrefe & Huber Publishers.

Kasser, T., Ryan, R. M., Zax, M., & Sameroff, A. J. (1995). The relations of maternal and social environments to late adolescents' materialistic and prosocial values. *Developmental Psychology, 31*, 907–914. doi: 10.1037/0012-1649.31.6.907.

Knee, C. R., Lonsbary, C., Canevello, A., & Patrick, H. (2005). Self-determination and conflict in romantic relationships. *Journal of Personality and Social Psychology, 89*, 997–1009. doi: 10.1037/0022-3514.89.6.997.

La Guardia, J. G., & Patrick, H. (2008). Self-determination theory as a fundamental theory of close relationships. *Canadian Psychology, 49*, 201–209. doi: 10.1037/a0012760.

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. doi: 10.1037/0022-3514.79.3.367.

Lavigne, G. L., Vallerand, R. J., & Crevier-Braud, L. (2011). The fundamental need to belong: On the distinction between growth and deficit-reduction orientations. *Personality and Social Psychology Bulletin, 37*, 1185–1201. doi: 10.1177/0146167211405995.

Lynch, M. F., La Guardia, J. G., & Ryan, R. M. (2009). On being yourself in different cultures: Ideal and actual self-concept, autonomy support, and well-being in China, Russia, and the United States. *Journal of Positive Psychology, 4*, 290–304. doi: 10.1080/17439760902933765.

McAdams, D. P. (1989). *Intimacy: The need to be close*. New York: Doubleday.

McClelland, D. C. (1985). *Human motivation*. Glenview, IL: Scott, Foresman.

McHoskey, J. W. (1999). Machiavellianism, intrinsic versus extrinsic goals, and social interest: A self-determination theory analysis. *Motivation and Emotion, 23*, 267–283. doi: 10.1023/A:1021338809469.

Moller, A. C., Roth, G., Niemiec, C. P., & Deci, E. L. (2014). *Perceiving, selecting, and projecting: The effects of parental conditional regard on the best-friend and romantic relationships of their children*. Unpublished manuscript, University of Rochester.

Murray, H. A. (1938). *Explorations in personality*. New York: Oxford University Press.

Niemiec, C. P., & Deci, E. L. (2014). *Contextual supports for autonomy and the development of high-quality relationships following mutual self-disclosure*. Unpublished manuscript, University of Rochester.

Niemiec, C. P., Lynch, M. F., Vansteenkiste, M., Bernstein, J., Deci, E. L., & Ryan, R. M. (2006). The antecedents and consequences of autonomous self-regulation for college: A self-determination theory perspective on socialization. *Journal of Adolescence, 29*, 761–775. doi: 10.1016/j.adolescence.2005.11.009.

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*, 434–457. doi: 10.1037/0022-3514.92.3.434.

Reis, H. T. (2011). Perceived partner responsiveness as an organizing theme for the study of relationships and well-being. In L. Campbell & T. J. Loving (Eds.), *Close relationships: An interdisciplinary integration*. Washington, DC: APA Books.

Reis, H. T., Sheldon, K. M., Gable, S. L., Roscoe, J., & Ryan, R. M. (2000). Daily well-being: The role of autonomy, competence, and relatedness. *Personality and Social Psychology Bulletin, 26*, 419–435. doi: 10.1177/0146167200266002.

Roth, G., Assor, A., Niemiec, C. P., Ryan, R. M., & Deci, E. L. (2009). The emotional and academic consequences of parental conditional regard: Comparing conditional positive regard, conditional negative regard, and autonomy support as parenting practices. *Developmental Psychology, 45*, 1119–1142. doi: 10.1037/a0015272.

Ryan, R. M. (1982). Control and information in the intrapersonal sphere: An extension of cognitive evaluation theory. *Journal of Personality and Social Psychology, 43*, 450–461. doi: 10.1037/0022-3514.43.3.450.

Ryan, R. M. (1995). Psychological needs and the facilitation of integrative processes. *Journal of Personality, 63*, 397–427. doi: 10.1111/j.1467-6494.1995.tb00501.x.

Ryan, R. M., Bernstein, J. H., & Brown, K. W. (2010). Weekends, work, and wellbeing: Psychological need satisfactions and day of the week effects on mood, vitality, and physical symptoms. *Journal of Social and Clinical Psychology, 29*, 95–122. doi: 10.1521/jscp.2010.29.1.95.

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*, 68–78. doi: 10.1037/0003-066X.55.1.68.

Ryan, R. M., & Deci, E. L. (2008). Self-determination theory and the role of basic psychological needs in personality and the organization of behavior. In O. P. John, R. W. Robbins, & L. A. Pervin (Eds.), *Handbook of personality: Theory and research* (pp. 654–678). New York: Guilford.

Ryan, R. M., La Guardia, J. G., Solky-Butzel, J., Chirkov, V., & Kim, Y. (2005). On the interpersonal regulation of emotions: Emotional reliance across gender, relationships, and cultures. *Personal Relationships, 12*, 145–163. doi: 10.1111/j.1350-4126.2005.00106.x.

Ryan, R. M., Sheldon, K. M., Kasser, T., & Deci, E. L. (1996). All goals are not created equal: An organismic perspective on the nature of goals and their regulation. In P. M. Gollwitzer & J. A. Bargh (Eds.), *The psychology of action: Linking cognition and motivation to behavior* (pp. 7–26). New York: Guilford.

Shaver, P. R., & Mikulincer, M. (2011). Attachment Theory. In P. A. M. Van Lange, A. W. Kruglanski, & E. T. Higgins (Eds.), *Handbook of theories of social psychology* (Vol. 2, pp. 160–179). Thousand Oaks, CA: Sage.

Steinberg, L., & Silverberg, S. (1986). The vicissitudes of autonomy in adolescence. *Child Development, 57*, 841–851. doi: 10.2307/1130361.

Thibaut, J. W., & Kelley, H. H. (1959). *The social psychology of groups*. New York: Wiley.

Vansteenkiste, M., Simons, J., Lens, W., Sheldon, K. M., & Deci, E. L. (2004). Motivating learning, performance, and persistence: The synergistic effects of intrinsic goal contents and autonomy-supportive contexts. *Journal of Personality and Social Psychology, 87*, 246–260. doi: 10.1037/0022-3514.87.2.246.

Webster, D. M., & Kruglanski, A. W. (1994). Individual differences in need for cognitive closure. *Journal of Personality and Social Psychology, 67*, 1049–1062. doi: 10.1037/0022-3514.67.6.1049.

Weinstein, N., Hodgins, H. S., & Ryan, R. M. (2010). Autonomy and control in dyads: Effects on interaction quality and joint creative performance. *Personality and Social Psychology Bulletin, 36*, 1603–1617. doi: 10.1177/0146167210386385.

Weinstein, N., Law, W., & Ryan, R. M. (2012a). *When money matters, people don't: Wealth goals promote an instrumental orientation towards others*. Manuscript under review.

Weinstein, N., Przybylski, A. K., & Ryan, R. M. (2012b). The index of autonomous functioning: Development of a scale of human autonomy. *Journal of Research in Personality, 46*, 397–413.

Weinstein, N., & Ryan, R. M. (2010). When helping helps: Autonomous motivation for prosocial behavior and its influence on well-being for the helper and recipient. *Journal of Personality and Social Psychology, 98*, 222–244. doi: 10.1037/a0016984.

White, R. W. (1959). Motivation reconsidered: The concept of competence. *Psychological Review, 66*, 297–333. doi: 10.1037/h0040934.

Wild, T. C., Enzle, M. E., Nix, G., & Deci, E. L. (1997). Perceiving others as intrinsically or extrinsically motivated: Effects on expectancy formation and task engagement. *Personality and Social Psychology Bulletin, 23*, 837–848. doi: 10.1177/0146167297238005.

Williams, G. C., Cox, E. M., Hedberg, V., & Deci, E. L. (2000). Extrinsic life goals and health risk behaviors in adolescents. *Journal of Applied Social Psychology, 30*, 1756–1771. doi: 10.1111/j.1559-1816.2000.tb02466.x.

Winnicott, D. W. (1965). *The maturational process and the facilitating environment*. New York: International Universities Press.