Editorial overview: Relationship science
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Relationship science is a major bridge connecting the social, behavioral, and life sciences. It is a deeply theoretical discipline, one characterized by excellent cross-theoretical thinking and research. This inaugural issue of *Current Opinion in Psychology* showcases some of the newest discoveries in relationship science, discoveries which are beginning to tie together several allied fields. The articles in this special issue are organized around the three major theoretical perspectives that have helped to guide some of the best, most important, and most cutting-edge research currently being conducted in the science of relationships — interdependence theory, attachment theory, and various evolutionary theories. In this introduction, we offer a brief overview of each theoretical perspective and indicate how each article contributes to the development and/or integration of these theoretical perspectives.

Introduction
Close relationships are the fundamental building blocks of all societies, and, as is clear from the fine articles in this inaugural special issue of *Current Opinion in Psychology*, relationship science is a cornerstone discipline that is making good on its potential to integrate knowledge across diverse fields within the social, behavioral, and life sciences. This special issue is organized around the three most influential theoretical perspectives guiding relationships research today. In this introduction, we provide a brief synopsis of each theoretical perspective and clarify how each article addresses central principles and/or processes associated with specific theories.

Interdependence theory
Interdependence theory is the oldest of the three major theories in relationship science, dating back to Thibaut and Kelley's 1959 book *The Social Psychology of Groups* [1]. This seminal volume, and its 1978 successor [2], adapted principles from game theory [3,4] to provide an analysis of different types of interpersonal situations. Consider the outcome matrix on the left side of Figure 1 [5]. Richard and Genevieve are the exhausted parents of a colicky eight-month-old boy, who has, after two tyrannical hours, finally gone down for a nap. Feeling shell-shocked, they collapse onto the couch, at which point they notice that the house looks like the aftermath of a typhoon. Genevieve expresses bewilderment about how a little creature can create so much chaos.

As depicted in the left side of Figure 1, both of them want to sit on the couch while the other person cleans, which leaves them at an impasse. If Genevieve cleans while Richard recuperates on the couch, he experiences 4 units of utility, but she experiences — 8 units (lower-left quadrant), and the inverse is true if the roles are reversed (upper-right quadrant). Fortunately, these spouses love each other and value egalitarianism, and, with some mental effort, they can see what is best for them as a couple. The matrix on the left is called the *given matrix* because it is 'given' by the situation in light of the partners' gut-level preferences (the need to clean despite the shell-shock), whereas the matrix on the right is the *effective matrix* because it represents the partners' preferences after they have cognitively reconstrued the situation in terms of their collective, long-term interests.

The first two articles in this issue adopt an interdependence framework regarding relationship processes and functioning. Fitzsimons and Finkel
offer a new perspective on self-regulation, suggesting that goal pursuit is embedded within many social relationships. And Pronk and Righetti review evidence that people who experience strong (vs weak) executive control resources are more likely to engage in pro-relationship transformations of motivation.

Attachment theory
A second guiding theory in relationship science is attachment theory. According to Bowlby [6–8], humans evolved to form strong emotional bonds with their primary caregivers because doing so increased the probability of survival, especially during childhood. The strength of an attachment bond — which, in adulthood, is frequently with a romantic partner — is indexed by the degree to which an individual feels distressed when separated from the partner (his or her primary attachment figure), seeks proximity to the partner when upset, experiences emotional relief in the presence of the partner, and personally grows and develops with the partner’s sustained support [9].

Individuals develop different ways of perceiving and relating to significant others depending on how they have been treated in prior attachment relationships [10–12]. Securely attached people have received good care/support, which leads them to have positive views of themselves and others and motivates them to turn to significant others for comfort/support when distressed. Anxiously attached people have received inconsistent care/support and worry that significant others do not really love and may eventually leave them. Consequently, they are vigilant to signs of possible rejection, which generates strong distress and dysfunctional behavior, especially in relationship-threatening situations. Avoidantly attached people have been rejected in the past and believe they cannot trust or depend on significant others. Thus, they suppress their needs for closeness/intimacy, become self-reliant, and withdrawal from significant others when they feel distressed. The typical activation and operation of these individual differences is shown in Figure 2, which is adapted from Mikulincer and Shaver [13].

Four articles in this special issue adopt an attachment framework. Mikulincer and Shaver discuss how the experimental activation of security-enhancing representations has positive effects on emotion regulation, self and other appraisals, mental health, and prosocial actions. Feeney and Collins capitalize upon safe haven and secure base principles to present a model of how close relationships tend to promote personal thriving. Birnbaum and Finkel introduce a relationship stage model outlining the functional significance of sexual desire in relationship development. And Pietromonaco and Powers review likely physiological pathways and mediators of the connection between childhood attachment and adult attachment in predicting long-term health outcomes.

Figure 1

Illustrating the Outcome Matrix in Interdependence Theory. Note. The given matrix is on the left, and the effective matrix is on the right. In each cell of the matrices, the upper-right half represents Genevieve’s outcomes and the lower left half represents Richard’s outcomes. The process through which the individual reconstrues the given matrix to arrive at the effect matrix is called transformation of motivation. In this case, both partners have engaged in a generous transformation oriented toward maximizing the outcomes of the couple, which involves adding the numbers in the given matrix and applying those values to both partners’ outcomes in the effective matrix. For example, the upper-right cell takes the sum of 8 and -4 and applies that value to both partners’ outcomes in the effective matrix so both partners would experience 4 units of value in the upper right cell. Whereas the best course of action is ambiguous in the given matrix, the upper-left cell is clearly best in the effective matrix. Other transformations are possible; for example, if both partners wished to pursue a fairness-oriented approach that minimizes the differences between their outcomes, the upper-left or the lower-right cells in the given matrix would be best.
A Model of Attachment-System Activation and Functioning in Adulthood (adapted from Mikulincer & Shaver, 2003). Note: Cues of threat activate (turn on) the system. Secure individuals tend to perceive that their partners (attachment figures) will be available and responsive, so they experience greater security and less distress, which allows them to “broaden-and-build” their relationships. Anxious individuals tend to be uncertain about whether their partners will be sufficiently available and responsive, but believe that proximity-seeking could produce greater partner responsiveness and therefore enact hyperactivating strategies. Avoidant people typically do not believe their partners will be available and responsive and do not view proximity-seeking as an option, which leads them to engage in deactivating strategies.
Evolutionary theories

Contrary to popular conceptions, there is no single ‘evolutionary theory’ of relationships; there are many that focus on different adaptive problems our ancestors faced, some of which are tied to specific life stages [14]. The central principle linking all evolutionary theories is Hamilton’s [15] inclusive fitness theory — that individuals should have been selected to possess traits and behaviors that typically increased the replication of their genes across generations, either directly (through their own reproduction) or indirectly (through the reproduction of their biological relatives). How this is accomplished depends on the nature and quality of the physical and social environments in which an individual develops and currently lives.

Evolutionary theories have a hierarchical structure (see Figure 3, which shows life history theory in relation to five middle-level theories relevant to relationship processes and functioning). Life history theory explains how individuals unconsciously strive to increase their inclusive fitness across the lifespan [23]. All organisms — including humans — must make trade-offs in how they allocate their limited time, effort, and resources to fitness-enhancing investments, such as investing in current versus future reproduction, quantity versus phenotypic quality of offspring, or more versus less parenting effort in a given child.

Three articles in this special issue adopt an evolutionary framework. Kenrick and Griskevicius review common evolutionary principles that explain variation in mating behaviors across various species. Gangestad and Haselton review research revealing how women’s sexual desire and men’s reactions to women systematically change across the ovulatory cycle. And Maner and Ackerman discuss what has been learned about various cognitive attunements and biases associated with mating behavior in humans.

Hybrid perspectives

A great deal of research has begun to integrate, and formulate new principles informed by, two or more of these major theoretical perspectives. Four articles in this special issue discuss research at the intersection of interdependence and attachment theories. Murray and Holmes present a motivation-management model that explains how couples can sustain relationship commitment over time. Overall and Simpson discuss a dyadic regulation model clarifying our understanding of how successful partner regulation operates in relationships, especially with insecure partners. Reis and Gable present an interpersonal model of responsiveness that examines how and why partner responsiveness fosters satisfying, healthy relationships. And Leary and Clark present a motivated distortion model of partner responsiveness and review work that supports it.
Three articles discuss research at the intersection of interdependence and evolutionary theories. Lydon and Karremans discuss research addressing how people employ different kinds of strategies to protect their established relationships from the lure of attractive alternatives. Roney and Gettler review evidence suggesting that higher testosterone promotes mate pursuit and present a model of the role that this hormone plays in relationship initiation, maintenance, and daily functioning. And Coan and Shara describe social baseline theory and discuss how it links disparate areas in the behavioral and cognitive sciences.

Three articles discuss research at the intersection of attachment and evolutionary theories. Eastwick and Durante discuss adaptive workarounds, focusing on three relatively recent adaptations that alter human mating behaviors by shifting or refocusing the functions of older adaptations. Campbell and Fletcher review recent evidence relevant to the Ideal Standards Model and discuss the value of adopting a functional approach to social cognition in relationships. And Fraley and Roisman present and test different models outlining how early experiences with caregivers (parents) tend to shape psychological development into early adulthood.

A final article discusses research at the intersection of all three theories. Specifically, McNulty and Olson discuss how dual-process models of social processes can be leveraged to inform all three major theoretical perspectives.

Conclusion

Viewed as a whole, the 20 articles in this special issue provide a detailed snapshot of relationship science, circa 2015. This snapshot showcases a thriving discipline. The ideas are broad, deep, and innovative. They focus on topics that are especially consequential for human well-being. That such a young discipline has achieved so much so quickly speaks volumes about the scholars who have devoted their professional lives to understanding human relationships, and it bodes well for the development of relationship sciences in the decades to come.

References