What Makes People Feel Loved? An Exploratory Study on Core Elements of Love Across

Family, Romantic, and Friend Relationships

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Abstract

With research long focusing on distinct characteristics for different love types, little is known about love as a general feeling across relationship contexts. To explore the core elements of love as perceived by laypeople and whether these elements weigh differently in different relationships, grounded theory was used to analyze open-ended responses from 468 individuals about their feeling loved in family, romantic, and friend relationships. Results indicated that the feeling of love is an interpersonal process in which one receives *positive responsiveness* from the other and experiences an *authentic connection* with the other, consistently across conditions and time (i.e., in a sense of stability); three core elements were shared across family, romantic, and friend relationships. Chi-square independence tests revealed differentiated weights for love elements in three relationships, which corresponded to the prototypical love definition in family, romantic, and friend relationships. Findings suggested an integrated theoretical conceptualization of love as a shared feeling and asset across relationships, which provided important insights on love conceptualization, assessment, and study design, as well as implications for the treatment of dysfunctional relationships, best practices in daily interpersonal interactions, and improvement in intervention and therapy.

Keywords: Love, Family Relationships, Romantic Relationships, Friend Relationships, Grounded Theory, Mixed-Method

Love is essential to human well-being throughout the lifespan. It promotes brain connection during early infancy, facilitates positive development from childhood to adulthood, and enhances psychological well-being in later life (Gerhardt, 2014; Kahana et al., 2021; Rohner, 1975). Such beneficial implications for human beings have been found not only in studies conducted at different time scales (e.g., daily and yearly; Oravecz et al., 2020; Sillick & Schutte, 2006), but also across diverse populations (Kim & Hatfiled, 2004; Rohner, 1975). Knowing the significance of love in human life raises an important and even more fundamental question: what are the core elements of feeling loved? Since love is "a fussy and multifaceted concept" (Karandashev, 2019, p.31), it has been concretized into distinct types of love from the prototype perspectives (e.g., Fehr, 2015; Hendrick & Hendrick, 1986) or studied as discrete constructs in different interpersonal relationships (e.g., Guerra et al., 2011; Sabey et al., 2018).

Love as Distinct Types

Research on love from the prototype perspective can be traced back to the late 20th century. Lee (1973) proposed three primary and three secondary colors of love. Accordingly, Hendricks and Hendricks (1986) empirically confirmed Lee's six love styles, including Eros (passionate love), Ludus (game-playing love), Storge (friendship love), Pragma (logical, "shopping list" love), Mania (possessive, dependent love), and Agape (all-giving, selfless love). In the same vein, Sternberg (1986) proposed that intimacy, passion, and commitment are three basic components of love, and that their various combinations result in nine different types of love in close relationships. More recently, Berscheid (2010) synthesized all love taxonomies and proposed four basic types of love based on causal conditions and temporal hypotheses. Using this quadrumvirate model, Fehr (2015) systematically reviewed love literature and described these love types as follows: (1) Passionate love, defined as "a wildly emotional state

characterized by emotional extremes, physiological arousal, and sexual attraction" (Fehr, 2015, p.496). (2) Companionate love, defined as "friendly affection and deep attachment" (Hatfield & Walster, 1978, p.2). (3) Compassionate love, defined as the "love that centered on the good of the other" (Underwood, 2009, p3). And (4) attachment love, defined as a strong affectional bond to a specific person (for seeking proximity to when they feels threatened) (Berscheid, 2010).

With the prototypical tradition in love research and the historical view of love as an exclusive phenomenon in romantic relationships, another school of scholars investigates love as distinct constructs in different relationships. In family relationships, attachment love is most frequently studied. Aside from the abovementioned features of strong bond and seeking proximity, attachment love in family relationships also emphasizes consistently responding to the child's needs, resulting in a sense of security (Bowlby, 1988). Other love terms include familial/ maternal love and nurturant love, which share the same primary feature of "caring for the other's needs" but with a slightly different emphasis on "sacrifice" (Kikuchi & Noriuchi, 2015), or "protection" (Shiota et al., 2017). In romantic relationships, love is frequently named as passionate love, sexual love, or more broadly, romantic love. These terms defined love as an intense longing for union driven by sexual attraction and obsession, with minor variations in the weights of "intensity and attraction" and "sexuality" (e.g., Acevedo & Aron, 2009; Hatfield & Walster, 1978). In friend relationships, companionate love and platonic love are frequently mentioned. These two terms are largely overlapped, describing longer-lasting friendly and deep affection characterized by trust, liking, support, and respect (Fehr, 2015; Hatfield & Walster, 1978). Such love emphasizes the spiritual union (as opposed to sexual union in sexual love) (Masuda, 2003; Robinson, 2003).

Although love may be expressed or experienced differently in family, romantic, and

friend relationships, some shared themes in their respective love terms appear to emerge across relationship types. For example, "union" is a common theme of love in all three relationships. Such that children seek union with their parents when feel threatened or have a need (in family relationships), romantic partners have a strong longing for sexual union with each other (in romantic relationships), and friends seek and enjoy spiritual union with each other (in friend relationships). Similarly, "fondness" is mentioned as a love feature in both romantic (i.e., "attraction") and friend (i.e., "liking") relationships, and "dependability" is mentioned as a shared theme of love in family (i.e., "security") and friend (i.e., "trust") relationships. Furthermore, these love "types" may evolve into one another at different stages of a relationship. For example, some researchers believe that after the early stages of forming a romantic relationship, romantic love fades over time and the affection between partners evolves into a family-like (e.g., attachment love) and friendship-type (e.g., companionate love) love (Acevedo & Aron, 2009). Altogether, different "types" of love seem to share some similar underlying core elements of feeling loved, but they may just manifest in different ways in different relationships or at different stages in a relationship.

With most research focusing on categorizing love into *different* types and identifying their *distinct* features, the field may have paid more attention to the peripheral features of love in each type (i.e., how love manifested differently in different relationships) than the *central*, *shared* element of love as a general feeling. Investigating the shared core elements of love across interpersonal contexts is critical because such a general positive feeling can appear in any interpersonal context (even with one's neighborhood or strangers; Arnold, 1960; Fredrickson, 2013). Furthermore, it is the feeling of being loved, not a specific type of love or love in a specific relationship, that is at the heart of human flourishing (Gerhardt, 2014; Rohner, 1975).

Understanding the core elements of feeling loved in general interpersonal process can inform strength-based research and intervention to focus on such asset to promote individual well-being.

Love as a General Feeling in Experts' Definitions

Experts have attempted to conceptualize love as a general feeling from various perspectives. One of the most well-known theories about love is the attachment theory (Bowlby, 1988). It proposes that love occurs when parents sensitively attend to and consistently respond to their child's needs; such interaction and connection accumulate to form a sense of security in the *long term* (i.e., secure attachment) (Bowlby, 1988). This conceptualization of love has then been generalized into other close relationships, where "responding to needs", "connection", and "security" are still key characteristics (Fraley & Davis, 1997).

Fredrickson (2013) conceptualizes love as connection (i.e., positivity resonance) at the *momentary* level. In her theory, love is an emotion experienced in the moments of interpersonal connection with shared positive emotions, biobehavioral synchrony, and mutual care between individuals. Shared positive emotions (e.g., laughing or joking together) relax individual boundaries and facilitate the formation of union between individuals. Biobehavioral synchrony (e.g., eye contact, mirroring each other's gesture) reflects the process of being "in sync" and the genuine connection between individuals, where people truly see each other wholeheartedly. And mutual care is the intention to invest in the other's well-being and respond in a caring way in the connection moments (Fredrickson, 2013).

The interpersonal acceptance-rejection theory (IPARTheory; Rohner, 1975) is more specific about *how to express* love. It proposes that love is expressed through interpersonal acceptance, such as warmth, care, comfort, and support (Rohner, 2016). Such acceptance can be manifested through physical (e.g., hug, cuddle), verbal (e.g., praise, compliment), and symbolic behaviors (e.g., nonverbal positive gestures). Through these positive responses, the recipients feel accepted, cared, liked, and appreciated (Rohner, 1975).

Other scholars distinguished unconditional love from conditional love, emphasizing that the essence of love is empathetic attention, emotional affirmation, and fondness for others *without any condition or expectation* (Rogers, 1957; Welwood, 1985). Just like Welwood (1985) described, unconditional love is "an unconditional openness, or sense of connection that could be characterized by the qualities of *letting be* and *being-with*" (p.36). Such unconditional positive regard is also the premise for an entire form of therapy (i.e., Rogerian therapy), which helps therapists better connect with their clients and create lasting change. Similarly, Fehr and colleagues proposed that love is an other-oriented attitude, in which seeing and valuing the other as they is are the key factors (Fehr, 2015).

These theories explicitly or implicitly describe some generic themes of love, such as care, acceptance, positivity, and connection. However, because different theories approach the conceptualization of love with a different focus (i.e., long term accumulation, momentary emotions, ways to express, under what condition), no consensus has yet been reached on the core elements of feeling loved. Exploring laypeople, recipient's perceptions of feeling loved using a data-driven approach would be a good supplement to the current expert-generated theoretical approach. Not only because laypeople may have a different perspective or other experiences of love (Fehr, 1994), but also because they are the recipients of their subjective experience, and their self-report is potentially the best way to capture love as a feeling (Flynn & Adams, 2009).

The Gap in Love Research and the Present Study

In summary, love has been studied in two distinct branches— "love typology" and "love as a general feeling", with various theoretical frameworks and definitions proposed within each branch. Love research would progress if the following gaps were filled. First, while both branches focus on the same phenomenon, there is a lack of connection or integration between their conceptualizations and theories. Second, there is no agreement on what the central features of love are. Third, it is unclear whether love in different relationships are distinct constructs or is the same construct manifested in different ways. An innovative theoretical framework that integrates literature in these two branches is critical for the next generation of love research.

To pave the way for identifying central features of love and integrating the love literature from diverse theoretical perspectives, this study aims to explore the core elements of feeling loved from a qualitative data-driven approach and whether these love elements are the same or different in different relationship types. There are two major research questions:

(1) What are the core elements of love, as perceived by laypeople? We would employ grounded theory methodology to analyze laypeople's open-ended responses about what makes them feel loved in family, romantic, and friend relationships, with the goal of developing a theory to better understand the core elements of love as a feeling.

(2) Are the core elements of love shared across family, romantic, and friend relationships? Whether the weights of each element are the same or different across three relationships? Using the mixed-method approach, we would first describe and compare the identified elements across relationships. Then we would compare whether the frequency of each identified element differs significantly across family, romantic, and friend relationships.

Methods

Participants and Procedures

Following approval from the University of [blind]'s IRB (#19-09-2777), this study was listed as one of the studies for students to select from to fulfill their research credit. Students who

volunteered to participate received the study's survey link via Qualtrics. One research credit was granted per student once the survey is completed. After removing invalid entries (i.e., the link was opened, but no valid information was listed), the final sample included 468 undergraduate students. Among them, 75.9% were White, 13.5% were Black/African American, 1.5% were Asian, 7.5% were mixed or other, and 1.6% did not report their race or ethnicity. Students identified themselves as male (18.8%), female (78.2%), transgender male (0.4%), gender variant/non-conforming (0.6%), non-binary (0.2%), or did not report their gender identity (1.8%). Their age range was 17 to 53 (M = 18.92, SD = 2.84). There were 37.0% freshmen, 13.9% sophomores, 4.1% juniors, 4.1% seniors, 0.4% above their 4th year in college, and 40.6% did not report this information. Their total household incomes (all members; for 2019 before taxes) ranged between "less than \$10,000" and "\$125,000 or more" (*Median*: "\$90,000-99,000").

This study focused on three open-ended questions in the love survey, with the same stem "what are three things that your ____ does that make you feel loved?" These three questions filled the blank with "parent/guardian", "romantic partner/hypothetical romantic partner", and "friend/best friend" respectively to reflect their experiences of feeling loved in family, romantic, and friend relationships accordingly. Participants were instructed to answer the questions honestly and include enough details to help researchers better understand their experiences.

Qualitative Data Analysis

Grounded theory approach. Grounded theory methodology provides abstraction from the data and conceptualizes the relationship among the extracted components, so that a theoretical framework is emergent from empirical data rather than from inferences or existing theories (Strauss & Corbin, 1998). Our analyses were according to the procedures and techniques proposed by Strauss and Corbin (1998), which included open coding, axial coding, and selective coding, resulting in the hierarchical structure of concepts \rightarrow categories \rightarrow core categories in the developing theoretical framework. Before coding, the second author immersed herself in the whole data to obtain a "big picture" of all possible meaning units (i.e., key phrases or themes in each open-ended response). In open coding, the meaning units were first identified by two independent coders. The second author constantly compared their similarities and differences, as well as conversed with coders and other authors, in order to group the initial meaning units into fewer and more focused, comprehensive codes (i.e., concepts). It should be noted that concepts may have different levels of abstraction (e.g., "supporting/helping me" at a more abstract level, "emotional support" at a more specific level), so that specific concepts were at the lowest level of abstraction in the hierarchical structure while abstract concepts were used to inform components at a more abstract level of the hierarchical structure, such as categories and core categories. Axial coding was used to generate *categories* (i.e., components that were created at a more abstract level to be used for grouping specific concepts) and investigate the relationship between concepts and categories. Spradley's (1980) semantic relationships were used as the primary coding paradigm for axial coding. Finally, selective coding was used to integrate different categories into *core categories* to form an explanatory whole of the theory. The three coding steps were conducted in a cyclical and evolving loop until the construct of concepts/categories were clear and their relationships were logical and interpretive.

Credibility check. Given the interpretive nature of the grounded theory approach, its credibility is less concerned with obtaining a single, correct interpretation of the data and more concerned with obtaining data accuracy while minimizing researcher bias (Glaser & Strauss, 1967). We used three strategies recommended by Morse (2015) to ensure the credibility. (1) *Developing a coding system.* In the coding system, we listed all meaning units under each

concept, noted the level of abstraction of each concept, detailed the meaning for each concept and category, and kept memos about the rationale for grouping and abstracting in each step. (2) Checking inter-rater agreement (IRA). In each of the three relationship types, 20% responses were randomly selected for checking IRA between two independent coders (O'Conner & Joffe, 2020). After converting their initially identified meaning units into concepts (according to the coding system), the percentage of agreement was calculated as "number of concepts identified by both coders" divided by "number of concepts identified by either coder" (Gisev et al., 2013). We obtained appropriate IRA in three relationships in selected responses (family: 0.69, romantic: 0.77, friend: 0.75; Campbell et al., 2013). (3) Clarifying researcher bias. Researchers engaged in reflexivity of how our professional and personal backgrounds might shape methodological decisions and interpretations (Mauthner & Doucet, 2003). For example, the first author's research background is about family relationships and other interpersonal relationships, and she has immersed herself in love-related theories and literature. She limited her engagement in the open and axial coding steps in the first several loops to ensure that the previous theories were used to enhance theoretical sensitivity rather than increase coding bias. The other two authors (who purposefully avoided reading any love-related literature) were heavily involved with the entire data coding process, and their expertise was complementary to each other: the second author had taken advanced doctoral-level qualitative research method courses and conducted qualitative research using grounded theory; and the third author was detail-oriented and raised in the same generation as our participants (so she could accurately understand the responses, even with slang or lingo). Finally, three authors maintained a detailed memos on their bias and beliefs through the whole coding process.

Quantitative Data Analysis

Qualitative concepts, categories, and core categories were transformed into quantitative data. This was done by listing each identified concept as a new variable in the dataset, and each participant's open-ended responses were coded as 0 (if the concept was not mentioned) or 1 (if the concept was mentioned), according to our coding system. The categories and core categories were calculated as new variables accordingly and also coded as 0 (if none of the concepts under this category was mentioned) or 1 (if any of the concepts under this category was mentioned) or 1 (if any of the concepts under this category was mentioned). If a participant skipped any question, their data for that question were coded as missing. In the final dataset, each participant's data were stacked vertically, with each row representing their data in one of the family, romantic, and friend relationships for comparison purposes in the next step.

Finally, a series of chi-square tests of independence were conducted to examine the associations between relationship types and frequencies of each (core) category or concept of love mentioned by participants. A significant chi-square indicated that the given category/concept of love was significantly different in frequency across relationships, and pairwise comparisons were conducted in z-tests with a Bonferroni correction to identify the specific difference in frequency between each pair of relationships. The quantitative data management and analysis were implemented in SPSS 25 (IBM Corp, 2017).

Results

Core Elements of Love Across Relationships

All open-ended responses across three relationships were analyzed and yielded 37 concepts (including 28 specific concepts and 9 abstract concepts), 7 categories, and 3 core categories¹. Example responses under each concept were listed in the Supplemental Materials

¹This finding was replicated in an online community sample of 79 adults (see Supplemental Materials and Table S1 for details).

(Table S2). Except for the concepts of "coming to me for help" and "intimacy" that only appeared in friend and romantic relationships (not in family relationships), all three relationships had the same 3 core categories, 7 categories, and 35 (out of 37) concepts (Table 1). This indicated that the core elements of love were shared by all three relationships.

In the theory developed from this dataset (Figure 1), the feeling of love is conceptualized as an interpersonal process in which one person receives *positive responsiveness* from the other and experiences an *authentic connection* with the other, consistently across conditions and time (i.e., in *a sense of stability*). This process enables the person to perceive positive oneness with the other (i.e., feeling loved). These core categories (and underlying categories and concepts) in Table 1 were explained in detail below.

Positive responsiveness (to needs) represented "how to" respond to various individual needs with positive valence to make an individual feel liked, valued, and supported. Each of the three underlying categories was a different way to provide positive responsiveness: (1) *Demonstrating affection* represented different ways of expressing love through affection, including physical affection, verbal affection, showing positive attitude, and sending things. (2) *Enhancing sense of worth* represented actions that make one feel valued and important as a person (i.e., expressing my importance and special, prioritizing me) and for one's positive qualities (i.e., acknowledging my worth, coming to me for help). (3) *Providing support* represented providing various tangible and intangible support when needed, including providing resource, providing service, providing guidance, defending "me", emotional support, and autonomy support.

Authentic connection represented the process of forming or maintaining intimate union/oneness. Its underlying categories described two main characteristics of authentic

connection: (1) *Mutual affinity* represented a mutual desire for and actions of positive interactions or togetherness. It was manifested as (and could also be a result of) sharing, communication, doing things together, and wanting to be together. (2) *In tune with one another* represented the intention, actions, and process of achieving mental resonance with someone (i.e., "me" in this study scenario). It usually involves multiple steps for the other person to approach "me" (e.g., being interested in me, paying attention on me, thinking of me, and engaging with me) and relax their individual boundary to merge with "me" (e.g., being open to me, including me). Listening (to me) is one of the most commonly mentioned strategies for being in tune with someone and, as a result, making this person feel understood and known (i.e., understanding me).

A sense of stability represented the feeling that the interactions between two parties were stable, durable, and reliable. Its two underlying categories described the sense of stability from two different dimensions—no matter "what" and "when". (1) *Unconditional* emphasized that the interactions remained the same regardless of conditions (i.e., no matter what), which could be manifested as doing anything for me without expectation and accepting me as who I am. (2) *Dependable* emphasized the consistency of interactions over time (i.e., no matter when), which was described as always being reliable and trustworthy, and (being there) in times of need. In addition to these two dimensions of how the other provides a sense of stability to "me", "keeping connected when separated" described the sense of stability for the relationship itself.

Comparisons of Perceived Love in Family, Romantic, and Friend Relationships

Altogether, valid cases included 1,395 responses across three relationship types; nine missing responses included one in family relationships, six in romantic relationships, and two in friend relationships. The frequencies (Figure 2) and comparisons (Table 2) of categories and core categories across three relationships are presented in the manuscript. Frequencies (Figure S1)

and comparisons (Table S3) of (specific) concepts across three relationships are listed in Supplemental Materials.

Figure 2 (left) presents the frequencies of categories within each relationship. In family relationships, "providing support" was mentioned most often by participants (72%), followed by "demonstrating affection" (54%), "mutual affinity" (48%), and "in tune with one another" (34%). In romantic relationships, "demonstrating affection" was mentioned most often (65%), followed by "mutual affinity" (51%), "providing support" (48%), and "in tune with one another" (38%). In friend relationships, "mutual affinity" was mentioned most often (73%), followed by "providing support" (52%), "dependable" (48%), and "in tune with one another" (47%). In Table 2 (upper panel), chi-square tests indicated no difference on whether "enhancing sense of worth" $(\chi^{2}[2] = 6.06, p = .05)$ and "unconditional" $(\chi^{2}[2] = 0.03, p = .98)$ were mentioned as a love component across relationships, but significant differences in the frequencies of the other five categories were found across three relationships. Specifically, "providing support" was mentioned significantly more often in family relationships (than in other relationships). "Demonstrating affection" was mentioned significantly more often in romantic relationships. "Mutual affinity", "in tune with one another", and "dependable" were mentioned significantly more often in friend relationships.

Figure 2 (right) presents the frequencies of core categories in each relationship. "Positive responsiveness (to needs)" was mentioned most often in family (99%) and romantic (97%) relationships, followed by "authentic connection" (family: 66%, romantic: 71%) and "a sense of stability" (family: 34%, romantic: 36%). "Authentic connection" was mentioned most often in friend relationships (87%), followed by "positive responsiveness (to needs)" (86%) and "a sense of stability" (54%). In Table 2 (lower panel), chi-square tests indicated significant differences on

whether "positive responsiveness (to needs)" ($\chi^2[2] = 66.98$, p < .01), "authentic connection" ($\chi^2[2] = 61.48$, p < .01), and "a sense of stability" ($\chi^2[2] = 48.11$, p < .01) were mentioned as love components across the three relationships. "Positive responsiveness (to needs)" was mentioned significantly more often in family and romantic relationships; "authentic connection" and "a sense of stability" were mentioned significantly more often in friend relationships.

Discussion

By coding open-ended responses on what makes one feel loved in family, romantic, and friend relationships in a large sample (n=468), this study provided rich information to cover the breadth of themes in love conceptualization across various relationship contexts. Findings revealed that positive responsiveness (to needs), authentic connection, and a sense of stability were three core elements of love shared across relationships. This grounded theory of perceived love, if replicated further, would contribute to the theoretical conceptualization of love as a feeling and an asset in general interpersonal processes, to inform strengths-based research and intervention, set the theoretical foundation for developing an assessment tool of love, and provide guidance for the treatment of dysfunctional relationships and best practices in daily interpersonal interactions. Findings on the varying frequencies of love elements across relationships correspond to the prototypical definition of love in their respective relationship contexts (e.g., Fehr, 2015; Shiota et al., 2017), suggesting that love in different relationships is more likely to have a different distribution of the same components than to be a distinct type of love.

Grounded Theory on Core Elements of Love

The findings revealed that the feeling of love is an accumulative interpersonal process in which an individual consistently perceives positive responsiveness from the other and experiences authentic connection with the other regardless of conditions or time. As a result, the individual perceives a positive sense of oneness with the other. This grounded theory of feeling loved resonates with Reis and Shaver's (1988) interpersonal process model of intimacy, which proposes that intimate relationships develop a sense of "we-ness" that embodies a temporal perspective on mutual validation (being appreciated and valued) and understanding (being truly seen and known). "Positive responsiveness" and "authentic connection" in our theory correspond to "validation" and "understanding" in their theory. And "a sense of stability" is in line with their theory's temporal perspective, emphasizing that intimacy develops from a history of positive experiences over and above momentary variations (Reis & Shaver, 1998).

These three core elements of love echo and integrate previous love theories. "Positive responsiveness (to needs)" describes positive ways of responding to the other's needs, which is consistent with attachment theory (Bowlby, 1988) and IPARTheory (Rohner, 1975). Its underlying categories specify three ways to respond with positive valence, including exhibiting fondness (i.e., "demonstrating affection"), worthiness (i.e., "enhancing sense of worth"), and support (i.e., "providing support"). This finding supports the IPARTheory that showing warmth, affection, and support are ways to express love (Rohner, 2016), and additionally emphasizes that making people feel valued is another important way to make them feel loved.

"Authentic connection" describes the process and states of a pleasurable, desired, and heart-to-heart connection. (1) "Mutual affinity", emphasizes the enjoyable and mutually desired experience of togetherness, which is in line with the motivational arousal described in the element of passion in triangular theory of love (Sternberg, 1986), and analogous to the positive feeling of having fun with friends in companionate love and the strong desire for union with a romantic partner in passionate love (Fehr, 2015). Such shared positive emotions are important for relaxing individual boundaries and building genuine connection (Fredrickson, 2013). (2) "In tune with one another" focuses on the process of approaching and merging with someone to form a heart-to-heart connection. This feature echoes Sternberg's (1986) description of the intimacy component in his theory and is in line with the notion of being "in sync" in Frederickson's (2013) theory, where truly seeing, understanding, and including the other wholeheartedly is the key to forming such positive oneness. This finding supports the importance of "shared positive emotions" and "biobehavioral synchrony" in the theory of positivity resonance (Fredrickson, 2013) and opens the door to connecting this momentary level theory with other love concepts at the macro or trait level (e.g., Ludus, platonic love, and companionate love).

"A sense of stability" describes the feeling that the interaction/connection between two parties were durable, stable, and reliable, which echoes the emphasis of stability and consistency in attachment theory (Bowlby, 1988), unconditional love (Welwood, 1985), and the commitment component in the triangular theory of love (Sternberg, 1986). Its underlying category "dependable" aligns with attachment theory, which emphasizes a sense of stability and security as an accumulative result of the consistent responsiveness to need (Bowlby, 1988). "Unconditional", as another underlying category, underscores the sense of stability from a different perspective—the interaction/connection would remain the same under any condition (Welwood, 1985). This core element takes into account the temporal history of interpersonal relationships and sheds light on how loving moments (e.g., momentary positivity resonance) may accumulate into a more stable perception of love over time (e.g., secure attachment), implying the necessity of incorporating the timing and dynamic component in the study design of love.

Comparison of Love Across Family, Romantic, and Friend Relationships

The finding of the same categories and core categories in all three relationships suggests

that positive responsiveness, authentic connection, and a sense of stability are three core elements of love shared in family, romantic, and friend relationships. This provides evidence of love as a general feeling experienced in a variety of interpersonal contexts, and that the core elements of feeling loved may be more similar across interpersonal contexts than distinct between relationship types (Fredrickson, 2013; Heshmati et al., 2019). Although the specific actions that elicit the feeling of love may vary depending on the relationship type, the message they convey is generalizable across relationship contexts (e.g., "cooking for me" in family relationships and "bringing food" in friend relationships both reflect providing support through service). In other words, our findings suggest that love in different relationships is likely to be the same construct that manifests in relationship-specific ways and love is an asset in general interpersonal processes regardless of relationship types.

When comparing the frequency of each element across relationship types, their varying weights in each relationship correspond to how people typically conceptualize love in the respective relationship. In family and romantic relationships, "positive responsiveness (to needs)" is most frequently mentioned. This is in line with literature on attachment relationships, holding that communal responsiveness is the core of love (Clark & Monin, 2006; Fraley & Davis, 1997). Positive responsiveness (e.g., being affectionate and supportive) is found to be closely related to the feeling of love in both parent-child and romantic relationships (Coffey et al., 2022; Rohner, 2016), but the predominant responding styles differ slightly. We found that "providing support" was more often mentioned in family relationships, whereas "demonstrating affection" was more often mentioned in romantic relationship. This corresponds to the typical role of parent and romantic partner in our life, where parent(s) is the primary source of social support, resources, and service provision (Procidano & Heller, 1983), and (physical) affection is

a primary feature to differentiate romantic love from others (Floyd & Morman, 1997).

In friend relationships, "authentic connection" and "a sense of stability" are most often mentioned. Consistent with the definitions of companionate love and platonic love, the spiritual union (i.e., authentic connection) is the key for love in friend relationships (Masuda, 2003; Robinson, 2003), and mutual affinity (e.g., companionship and having fun together) is a main feature for characterizing high-quality friendships (Parker & Asher, 1993; Buhrmester, 1990). The higher weight of "a sense of stability" in friend relationships is consistent with companionate love and friendship literature in which "trust" is viewed as an important component (Alfano, 2016; Fehr, 2015). It is also possible that, by default, love in friend relationships is not expected to be as stable as that in family and romantic relationships, thus, it is emphasized more in this relationship type (Douglas et al., 2011).

Although many categories weigh differently across three relationships, some similarities provide insights into the key aspects of love as a feeling shared across relationships. In the frequency descriptive figure (Figure 2), "providing support" (52%~72%), "mutual affinity" (48%~73%), and "in tune with one another" (34%~47%) are among the top across all relationship types. This is consistent with prior research: support is commonly identified as a key component of love or even used interchangeably with love (McNeely & Barber, 2010; Sabey et al., 2018), and mutual affinity and being in tune with one another are at the core of several conceptualizations of love (e.g., companionate love, compassionate love, and positivity resonance) (Fehr, 2015; Fredrickson, 2013). This highlighted the importance of providing support, having quality time together, and truly understanding for someone's feeling of love regardless of relationship types. In addition, it is worth noting that "enhancing sense of worth" was mentioned by 23~30% individuals in different relationships and did not differ significantly

by relationship types. This may indicate that a sense of worthiness—being valued as a person and for their positive qualities—is a fundamental motivation for striving in life, growth, and achievement, regardless of interpersonal settings (Covington, 1984; Gordon et al., 2011).

Limitation, Conclusion, and Implications

This study should be viewed in the context of its limitations. First, with many participants in this undergraduate sample identifying as White (75.9%) and female (78.2%), a major limitation of this study is the lack of diversity. Although the core elements were replicated in the small community sample (see supplemental materials Table S1) and post-hoc analyses indicated the frequency of most love components did not differ by demographic characteristics (see supplemental materials Table S4), it is necessary for future research to (1) collect more, important background information (e.g., sexual orientation, experience of being in serious romantic relationships) and (2) testify whether findings in this study may vary as a function of demographic characteristics, to better inform the extension, replication, or generalizability of these findings. Future research will benefit from more representative samples to better reflect the perceptions of people with more diverse racial or gender identities. Second, since this sample was only recruited in the southern U.S. and the theoretical literature of love was primarily derived from western cultures, future research on cross-cultural comparison is an important next step in enriching our understanding of the generalizability and specificity of love components and their weights in broader cultural contexts. Third, with the majority of participants being in emerging adulthood, future research should investigate love elements and their weights across the lifespan to understand love from a developmental perspective.

Despite these limitations, this is a pioneering study that examines perceived love across different relationships in a large response pool, using a data-driven approach from the layperson,

recipient's perspective. Positive responsiveness (to needs), authentic connection, and a sense of stability were identified as three shared core elements of love across family, romantic, and friend relationships. These findings contribute to advancement in research on love and provide important implications for practice and interventions to improve human life. For research, this study advanced our understanding of love, implying that love may be an asset that is widely experienced in general interpersonal processes, shedding light on future research from a strengths-based approach to study how to improve the feeling of love as a way to improve human life quality and well-being. The three-component framework of love provided an innovative theoretical perspective for integrating literature on love typology and love as a feeling, as well as a foundation for developing an assessment tool for feeling loved. The finding that love is an accumulative interpersonal process provided important guidance for future study design, suggesting the necessity of incorporating the time and dynamic dimension to study love as a "process" rather than a static "quality" or "trait". For practice and intervention, the three core elements of love (and their underlying specific components) identified in this study can be used to provide guidance on ways to maintain healthy interpersonal relationships in daily life (e.g., expressing opinions in a way that makes the other feel being validated, valued, supported and appreciated; being empathetic and listening; and keeping up with promise and being available) and inform intervention design for treating relationship dysfunction (e.g., modules on training constructive response skills, fostering the opportunity and ability to understand others, and teaching strategies for maintaining relationship stability). The shared core elements of love in general interpersonal processes (across relationship types) may also extend to the therapist-client relationship, providing guidance on how to develop a better alliance between both parties to optimize the effectiveness of treatment. Similarly, training intervention providers to be "more

loving" or incorporating a "love-enrichment" interpersonal component into any established intervention program may help booster the effectiveness of the original intervention.

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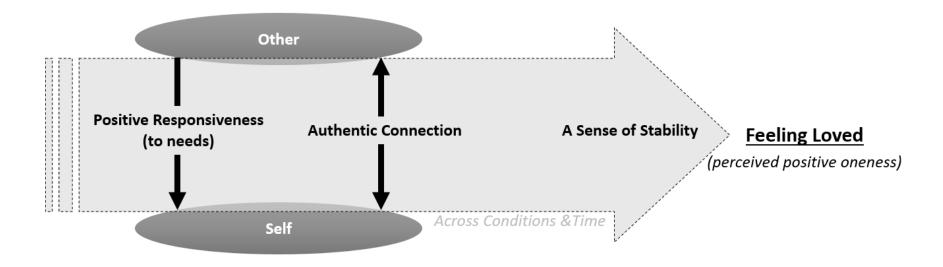


Figure 1. The underlying process of what makes people feel loved

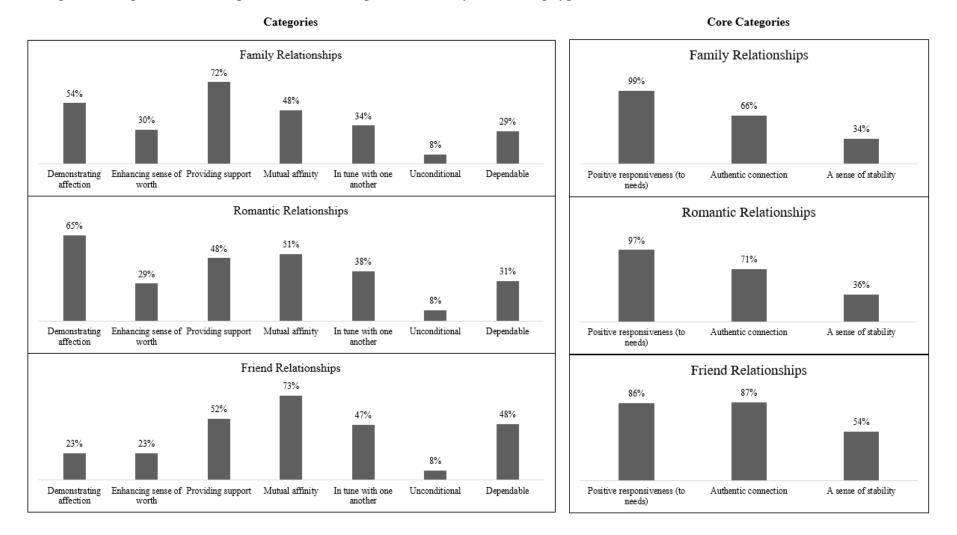


Figure 2. Frequencies for categories and core categories of love by relationship types

Core Categories [Abstract Concepts]	Categories [Abstract Concepts]	(Specific) Concepts		
I. Positive responsiveness (to needs)	A. Demonstrating affection	1. Physical affection		
[33. Caring me]	[29. Demonstrating affection]	2. Verbal affection		
[34. Through actions]		3. Showing positive attitude		
[35. Treating me well]		4. Sending things		
	B. Enhancing sense of worth	5. Expressing my importance and special		
		6. Prioritizing me		
		7. Acknowledging my worth		
		8. Coming to me for help*		
	C. Providing support	9. Providing resource		
	[30. Supporting/helping me]	10. Providing service		
		11. Providing guidance		
		12. Defending me		
		13. Emotional support		
		14. Autonomy support		
II. Authentic connection	D. Mutual affinity 15. Sharing			
[36. Intimacy*]	·	16. Communication		
		17. Doing things together		
		18. Wanting to be together		
	E. In tune with one another	19. Being interested in me		
	[31. Understanding me]	20. Paying attention on me		
	[32. Listening to me]	21. Thinking of me		
		22. Engaging with me		
		23. Being open to me		
		24. Including me		
III. A sense of stability	II. A sense of stability F. Unconditional			
[37. Keeping connected when separated]		25. Doing anything for me without expectation 26. Accepting me as who I am		
	G. Dependable	27. Always being reliable and trustworthy		
	1	28. (Being there) in times of need		

Table 1. Concepts, categories, and core categories of love in family, romantic, and friend relationships

Note. *This concept did not emerge in family relationships. All other concepts, categories, and core categories were shared across three relationships.

Homily	Romantic	Friend		
relationships (a)	relationships (b)	Relationships (c)	Chi-square test of independence	Pairwise comparison
Frequency	of observed (expec	ted) yes=1	$\chi^2(df), p$ -value	
251(221.3)	302(218.9)	108(220.8)	177.05(2), <i>p</i> < .01	b > a > c
140(127.2)	132(125.8)	108(126.9)	6.06(2), p = .05	
338(269.2)	222(266.3)	244(268.6)	64.25(2), <i>p</i> < .01	a > b, c
222(266.8)	237(264.0)	338(266.2)	69.10(2), <i>p</i> < .01	c > a, b
158(185.8)	176(183.8)	221(185.4)	18.81(2), <i>p</i> < .01	c > a, b
37(37.8)	38(37.4)	38(37.7)	0.03(2), p = .98	
134(167.0)	141(165.3)	224(166.7)	46.40(2), <i>p</i> < .01	c > a, b
Frequency	v of observed (expec	ted) yes=1	$\chi^2(df), p$ -value	
460(438.2)	446(433.5)	403(437.3)	66.98(2), <i>p</i> < .01	a, b > c
308(349.5)	329(345.8)	407(348.7)	61.48(2), <i>p</i> < .01	c > a, b
159(194.5)	168(192.4)	254(194.1)	48.11(2), <i>p</i> < .01	c > a, b
	(a) Frequency 251(221.3) 140(127.2) 338(269.2) 222(266.8) 158(185.8) 37(37.8) 134(167.0) Frequency 460(438.2) 308(349.5)	relationshipsrelationships(a)(b)Frequency of observed (expect $251(221.3)$ $302(218.9)$ $140(127.2)$ $132(125.8)$ $338(269.2)$ $222(266.3)$ $222(266.8)$ $237(264.0)$ $158(185.8)$ $176(183.8)$ $37(37.8)$ $38(37.4)$ $134(167.0)$ $141(165.3)$ Frequency of observed (expect $460(438.2)$ $446(433.5)$ $308(349.5)$ $329(345.8)$	relationshipsrelationshipsRelationships(a)(b)(c)Frequency of observed (expected) yes=1 $251(221.3)$ $302(218.9)$ $108(220.8)$ $140(127.2)$ $132(125.8)$ $108(126.9)$ $338(269.2)$ $222(266.3)$ $244(268.6)$ $222(266.8)$ $237(264.0)$ $338(266.2)$ $158(185.8)$ $176(183.8)$ $221(185.4)$ $37(37.8)$ $38(37.4)$ $38(37.7)$ $134(167.0)$ $141(165.3)$ $224(166.7)$ Frequency of observed (expected) yes=1 $460(438.2)$ $446(433.5)$ $403(437.3)$ $308(349.5)$ $329(345.8)$ $407(348.7)$	relationships (a)relationships (b)Relationships (c)Chi-square test of independenceFrequency of observed (expected) yes=1 $\chi^2(df)$, p-value251(221.3)302(218.9)108(220.8)177.05(2), $p < .01$ 140(127.2)132(125.8)108(126.9) $6.06(2)$, $p = .05$ 338(269.2)222(266.3)244(268.6) $64.25(2)$, $p < .01$ 222(266.8)237(264.0)338(266.2) $69.10(2)$, $p < .01$ 158(185.8)176(183.8)221(185.4) $18.81(2)$, $p < .01$ 37(37.8)38(37.4)38(37.7) $0.03(2)$, $p = .98$ 134(167.0)141(165.3)224(166.7)46.40(2), $p < .01$ Frequency of observed (expected) yes=1 $\chi^2(df)$, p-value460(438.2)446(433.5)403(437.3) $66.98(2)$, $p < .01$ 308(349.5)329(345.8)407(348.7) $61.48(2)$, $p < .01$

Table 2. Chi-square tests and pairwise comparisons for categories and core categories of love across relationships

Note. '—' indicates there are no significant differences across three relationships in this set of pairwise comparisons.