

## The Distribution of Chapman's Love Languages in Couples: An Exploratory Cluster Analysis

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Chapman identified and described Five Love Languages (LLs), principal value systems by which individuals communicate and anticipate expression of affection: Words of Affirmation, Quality Time, Receiving Gifts, Acts of Service, and Physical Touch. Although Chapman's model has become embraced by laypeople and helping professionals, it remains relatively underresearched. In this exploratory study, multivariate clustering procedures were used to identify profiles of combinations of LLs (as measured by Chapman's Love Languages Personal Profile for Couples) in 100 couples. Emphasis was given not only to men's and women's primary LLs but also to differences between men and women within each couple as quantified by mean differences and Cohen's *d* effect sizes thereof across the combination of all five LLs. In comparing the clustering variable means of the final cluster solution, it was found that the four profiles matched well and varied in a statistically significant manner. The relationship between the four-cluster solution and couples' reported levels of global relational satisfaction (as measured by the Revised Kansas Marital Satisfaction Scale) also was assessed. Although no significant differences were found in the distress profiles across the four clusters (likely due to insufficient variability based on a majority nondistressed sample), results did suggest a trend whereby couples were less likely to report distress the more their combination of LL preferences was congruent. This study makes several methodological contributions to an emerging literature on the LLs, and the results provide a foundation for further research, particularly on how Chapman's model contributes to understanding the relationships between intimate relationships, self-development, and self-expansion.

**Keywords:** Five Love Languages, relational satisfaction, relationships and self-development, relationships and self-expansion, cluster analysis

In 1992, anthropologist-turned-marriage-counselor and pastor Gary Chapman initially published *The Five Love Languages*, which was

updated in 2015. Therein he identified and described Five Love Languages (LLs) based on observations from his clinical practice. LLs are principal value systems by which individuals communicate and anticipate the expression of affection: Words of Affirmation, Quality Time, Receiving Gifts, Acts of Service, and Physical Touch. Chapman (2015a) proposed that although all five LLs are potentials within individuals, "what makes one person feel loved emotionally is not always the thing that makes another person feel loved emotionally" and that each person has one primary LL by which he or she prefers to receive affection (p. 56). Accordingly, relational distress occurs when individuals do not express affection using their partner's primary LL, and the message of affection be-

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comes lost. Therefore, Chapman encouraged individuals to engage in an ongoing practice of mastering and using the LL most preferred by their partner, and that doing so not only opens channels of communication but also stimulates an ongoing process of personal growth and expansion of self in which partners develop underactualized qualities within themselves and integrate those into their existing personality.

As of 2018, Chapman's LL model has become embraced by laypeople (Egbert & Polk, 2006), regularly employed and endorsed by helping professionals (Bunt & Hazelwood, 2017; Eckstein & Morrison, 1999), and internationally, included in government-subsidized programs to improve relationships (Bunt & Hazelwood, 2017). Its magnitude is evident by sales of Chapman's (2015a) original volume exceeding "10 million copies in English" (p. 178). Despite Chapman's initial hesitation to offer a Spanish translation at the encouragement of a publisher because his model had been "discovered in an Anglo setting," today his work has been translated into "50 languages around the world," and "in almost every culture, the book has become a bestseller of the publisher," which demonstrates the LL model's cross-cultural appeal and resonance (pp. 178–179). Subsequently, Chapman has authored or coauthored additional writings that offer applications of his model specifically to men (Chapman & Southern, 2015), single adults (Chapman, 2017), children (Chapman & Campbell, 2016), adolescents (Chapman, 2016), and military families (Chapman & Green, 2017).

On the other hand, Chapman has not conducted research to empirically support his LL model, and today it remains relatively underresearched (Knox & Schacht, 2016). An EBSCO search in January 2018 yielded fewer than a dozen relevant empirical articles and dissertations, several of which "had significant methodological limitations" (Bunt & Hazelwood, 2017, p. 281) that are discussed further later in the text. Nonetheless, previous LL researchers have successfully validated the factor structure of Chapman's model and established its construct validity by testing connections with extant theories/principles from the fields of psychology and communication. These researchers have been explicit in their efforts to "bridge the current thinking found in both popular and aca-

demical arenas" by engaging "issues that resonate with the public" and by using Chapman's model "to provide new avenues for research and research dissemination instead of [academicians] working separately from the popular press" (Egbert & Polk, 2006, p. 26). Accordingly, this study is intended to continue Egbert and Polk's (2006) effort to provide a "springboard for the intersection of popular and scholarly discourse on relationships" that offers "valuable research findings" to not only "popular press and mental health professionals" but also to the academic psychology community that then "can be communicated to the general public in an effort to help them improve their own lives and relationships" (p. 26). With the validity of Chapman's model having already been established (as summarized in the Extant Research on the Five LLs section later in the text), this study provided exploratory data pertaining not only to men's and women's primary LLs but also to how all five LLs were valued differently within couples.

### Five LLs

The following is a brief summary of Chapman's (2015a) LLs, which he illustrated with vignettes from his practice. First, Words of Affirmation is conceptualized as individuals' preference for their partners to (a) regularly communicate affection (via verbal compliments and other words of appreciation and encouragement), (b) express kindness, and (c) make requests (vs. insistences) in everyday interactions that resemble *adult-adult* instead of *parent-child* interactions (Byrne, 1964/1996) as well as the absence of *demand-withdraw* patterns (Papp, Kouros, & Cummings, 2009). Second, Quality Time entails (a) undivided, focused attention, (b) employment of uninterrupted empathetic, reflective listening (vs. advice-giving from one's partner) and self-disclosure (see Collins & Miller, 1994; Jourard & Landsman, 1980), and (c) intentional engagement in mutually enjoyable activities. Third, Receiving Gifts involves a preference for one's partner to creatively provide a stream of visual symbols of affection that can either be purchased, found, or made and that need not be expensive, as well as the gift of one's presence during times of crisis. Fourth, Acts of Service comprises having love expressed via practical action (i.e., partners doing everyday tasks for them). Finally, Physical

Touch encompasses preference for tactile expressions of love via both sexual and nonsexual touch.

### Connections Between LLs and Extant Literature

Although Chapman (2015a) did not identify a particular theoretical framework, a careful reading of *The Five Love Languages* suggests that he developed his model via a type of grounded theory method in which he thematically derived five LLs from cases he encountered in his counseling practice. In presenting the LLs in his popular press book, he triangulates observations of his clients' experiences and realities with threads from extant marital/relational theory and research from humanistic–existential and family systems traditions.

### LLs and Personal Growth

Chapman's (2015a) conviction that “we must be willing to learn our [partner's] primary LL if we are to become effective communicators of love” (p. 15) reflects humanistic–existential psychologists' conceptualization of quality relationships as characterized by “delight in the freedom and uniqueness of the other” and as devoid of “self-centered agendas that would use the beloved to meet one's emotional needs” (Bradford, 2015, p. 671). For humanistic–existential psychologists (Frankl, 1983; Fromm, 1956; Jourard & Landsman, 1980; Maslow, 1999; Welwood, 1990, 1996), healthy love is a psychospiritual process characterized by concern for one's partner's well-being and growth, realistic demands/expectations of one's partner, respect for the partner's autonomy and individuality, and appreciation of the partner's idiosyncrasies.

Paradoxically, respect for individuality in one's partner entails an *I–Thou* encounter in which each partner “fills the other's phenomenological world” (McAdams, 2015, p. 186), thereby synergistically completing one another (Jung, 1925/1954; Welwood, 1990). Each person is changed by the relationship, which serves as a “potent vehicle for wisdom and awakening” in which one “stands on a razor's edge—the boundary of the unknown and the frontier of a whole new way of being” and becomes “[freed] from the conditioned personality [to become]

the authentic individual [one is] called to be” by the relationship (Welwood, 1996, pp. 17–18).

Likewise, Chapman's (2015a) LL model is built around “the need for personal growth” in successful relationships (p. 33) that is comparable with the processes of *self-actualization* (Maslow, 1999) and of *differentiation of self* (Bowen, 1978; Firestone, Firestone, & Catlett, 2013) and with the fulfillment of *proprie striving* (i.e., the natural teleological process of self-directed unification of personality; Allport, 1955). By “[calling] on [individuals] to cultivate the fullness and depth of who [they] are” (Welwood, 1990, p. 206), mature relationships provide a platform for the development of *self* (a “propensity,” a “becoming,” an “essential pattern of dynamic change that serves to move [individuals] toward [their] full [maturity]”; Polkinghorne, 2015, p. 88). As discussed more thoroughly in the following paragraphs, for Chapman (2015a), this takes the form of a developmental process in which individuals downplay their typical means of conveying appreciation for their partner (i.e., their own LL) and act on the motivation to adopt their partner's LL and adapt it into their own style: “That kind of love requires effort and discipline. It is the choice to expend energy in an effort to benefit the other person,” which reciprocates in a feeling of “satisfaction of having genuinely loved another” (pp. 33–34).

### From Passionate Love and Idealization to Companionate Love and Mature Intimacy

The LL model is situated in the context of the developmental unfolding of quality relationships that mirrors extant literature on the process-oriented progression from *passionate love* (see Meyers, 2007) and idealizing one's partner—usually based on unresolved attachment issues (Firestone & Catlett, 1999; Welwood, 1996) and/or “[compensation] for everything that was left unfulfilled in the lives of [one's] parents” (Jung, 1925/1954, p. 191)—toward *companionate love* (see Meyers, 2007) and valuing one's partner at a more realistic, grounded, practical level (Dawson, 2004; Johnson, 1983; Welwood, 1990). Chapman's (2015a) narrative is particularly geared toward couples whose current relational struggles reflect unresolved developmental tasks of the *coupling* stage of the family life cycle (Poinier, Romito, & Husney, 2017) in which part-

ners negotiate goals, expectations, and values in their relationship and commit to a new system that supersedes them as individuals and the rule structures (i.e., habitual patterns of relational behavior; Smith-Acuña, 2011) they each carried into the relationship from their respective families of origin. Accordingly, partners shake off the idealistic image that they project onto each other (which reflects the unfulfilled needs of each partner) and come to appreciate each other as they are (Johnson, 1983).

Chapman (2015a) differentiated between the infatuated “in-love experience”—with its “temporary emotional high” that “runs its course”—and “real” (i.e., mature) love that is “not obsessional” or “instinctual” or characterized by “euphoria” but rather that “unites reason and emotion,” is “intentional” and “involves an act of the will and requires discipline” (pp. 33–34). Chapman explained,

In time . . . we come down from [the] natural high [of the in-love experience] back to the real world. We discover the primary love language of our [partner], and we choose to speak it . . . for [our partner’s] benefit . . . to meet our [partner’s] emotional needs. If our [partner] has learned to speak our primary love language, our need for love will continue to be satisfied. If, on the other hand, he or she does not speak our love language, our tank will slowly drain, and we will no longer feel loved. With empty love tanks, couples tend to argue and withdraw, and some may tend to be violent verbally or physically. (pp. 134, 138–139, 166)

Empirically, this principle is echoed in Levitt et al.’s (2006) finding that whereas partners initially approach each other from the standpoint of appraisal (i.e., assessing “attributes of trust, devotion, care”), in successful partnerships this shifts to unconditional acceptance of the other on the other’s terms and to “mutual communication of . . . respect” (pp. 469–470). Otherwise, partners “blame [each other] for failing [them]” without realizing “that perhaps it is [they] who need to change [their] own unconscious attitudes—the expectations and demands [they] impose on [their] relationships and on other people” (Johnson, 1983, p. xii).

### LLs, Self-Expansion, and Relational Satisfaction

Furthermore, Chapman (2015a) proposed that particularly “when [a LL] doesn’t come naturally to [individuals], it is a greater expression of love” (p. 138). That is, the choice to

learn one’s partner’s LL provides opportunities for *self-expansion* (Aron & Aron, 1997; Aron, Lewandowski, Mashek, & Aron, 2013; Aron, Norman, & Aron, 1998; Aron, Mashek, & Aron, 2004; Aron & Aron, 1996). Chapman underscored the role of healthy tension in relationships (Fowers, 2000) that “brings out the best in each other” (Chapman, 2015a, p. 143) by challenging individuals out of their egocentric comfort zones and encouraging them to phenomenologically enter into the lived experience of their partner, empathetically understand that experience, and communicate it intersubjectively. Thus, the LL model provides “a path to consciousness” (Johnson, 1983, p. xii) and opportunities for “psychonutritional exchanges” (Firestone & Catlett, 1999, p. 82) that promote relationships characterized by openness (“a genuine interest in learning and growing beyond one’s defense system and self-protective routines . . . to expand one’s boundaries and broaden one’s range of experiences”; Firestone & Catlett, 1999, p. 84) and understanding (partners’ “ongoing dialogue about their differences as well as their similarities”; Firestone & Catlett, 1999, p. 90).

“When selecting among potential close relationship partners, one will be most attracted to the person who offers the greatest potential for self-expansion” (Aron & Aron, 1997, p. 267), the motivation for which “leads to a desire to include others in the self in order to expand the self” (Aron et al., 2013, p. 91; also see Aron et al., 2004; Aron & Aron, 1996). By way of an ongoing dialectic of expansion and integration (Aron et al., 1998), intimate partners respectively develop “increased competency and influence [and] a larger identity” (Aron & Aron, 1996, p. 46). Like Aron and Aron (1997), Chapman (2015a) emphasized that partners do not “lose their [individual] identity” when they take on the other’s LL but rather “enter into each other’s lives in a deep and intimate way” (p. 22). Comparable with the humanistic–existential conceptualization of healthy love surveyed earlier, “this post-inclusion, larger self creates (and explains) the remarkably unselfish nature of close relationships” (Aron & Aron, 1997, p. 253) insofar as “fantasies of permanence and self-centered security give way to a life lived with greater awareness of the transient, interrelated nature of things and the blissful and poi-

gnant subtleties of being human” (Bradford, 2015, p. 673).

Chapman (2015a) suggested that adopting one’s partner’s LL is conducive to “a positive emotional climate between” partners whereby they “learn to work together as a team—encouraging, supporting, and helping each other reach meaningful goals” (p. 180). Comparably, Aron et al. (1998) proposed that intimate relationships provide opportunities “not [for] the actual achievement of goals but [for] the *ability* to achieve goals” by way of the opportunity to receive “self-verification (the desire to have what [one] believes [one is] confirmed), self-enhancement (the desire to see [oneself] in the most positive light), and self-assessment (the desire for accuracy, the desire to know what [one] really [is] like)” as well as self-improvement (pp. 2–3; emphasis added). Accordingly, for Chapman (2015a), partners communicating via their partner’s preferred LLs activates ontological awareness (the “I am” experience of *being-in-the-world*, May, as cited in Polkinghorne, 2015) in each other and thereby empowers them to pursue goals beyond their own needs for security, belonging, and status/recognition (see Maslow, 1999):

When my [partner] lovingly invests time, energy, and effort in me, I believe that I am significant. Without love, I may spend a lifetime in search of significance, self-worth, and security. When I experience love, it influences all of those needs positively. I am now freed to develop my potential. I am more secure in my self-worth and can now turn my efforts outward instead of being obsessed with my own needs. True love always liberates. (p. 142)

Furthermore, Chapman (2015a) noted that “once [partners] begin speaking each other’s primary LL, they are surprised to see how quickly their emotions turn positive” (p. 180). Comparably, Gordon and Baucom (2009) noted that relationship satisfaction is positively correlated with relationships that are conducive to self-expansion insofar as they “provide a fertile environment for the development of individual strengths” that then reciprocally enhance the relationship (p. 431).

### Extant Research on the Five LLs

To contextualize this study’s contributions, the following is a review of themes from the extant LL literature. In summary, the majority

of studies to date have served to (a) validate the factor structure of Chapman’s model, (b) establish its construct validity by testing connections with extant theories/principles, and (c) test the association between alignment of partners’ primary LLs and relationship satisfaction/quality. A breakdown of each follows.

### Factor Structure

The factor structure of the LLs has been tested by two groups of researchers using scales they each developed by selecting key descriptive words/phrases from Chapman’s writings. First, Egbert and Polk (2006) found that their measure of individual participants’ preferences for *expressing* affection using the LLs had acceptable reliability, ranging from Cronbach’s  $\alpha = .77$  to  $.85$ . Second, for Goff, Goddard, Pointer, and Jackson (2007), who explored individual participants’ preferences for *receiving* affection, internal consistency and reliability were deemed excellent,  $\alpha = .84$  to  $.92$ . However, it is worth noting that, in their sample, Acts of Service was split into separate dimensions (domestic/indoor service and outdoor/shop service) based on participants’ responses coupled with socially constructed gender-based lines.

### Construct Validity

Using the same sample as above, Egbert and Polk (2006) also observed significant bivariate correlations in all but one combination of the LLs and an established measure of relational maintenance behaviors (Assurances, Openness, Positivity, Sharing Tasks, Social Networks, Advice, and Conflict Management) that are “enacted to preserve” relationships (p. 20). In addition, with one exception, combinations of one or more relational maintenance factors were found to significantly predict a specific LL. The authors concluded that the LLs may be regarded as concrete means by which individuals convey the intentions of the more abstract relational maintenance factors.

### Preferred LL and Relational Satisfaction/Quality

Veale (2006) investigated whether knowledge of one’s partner’s LL was likely to inspire behavior change that would result in the other

feeling more loved. Although the results were not found to be significant, it is worth noting that the study involved only increasing awareness of partners' LLs over a 2-week period without providing adequate interventive instruction to facilitate behavior change in each partner. In contrast, Chapman (2015a) noted that "other [LLs] must be learned," which entails "small steps" (p. 176).

Other researchers have sought to determine whether relational satisfaction was affected by the presence or absence of alignment between primary LL preferences reported by one partner and the LL reported by the other partner (Thatcher, 2004) or by their sharing the same primary LL (Bunt & Hazelwood, 2017). Although the results were not found to be significant in either study, it is worth noting that (a) in the former study, there was insufficient variability across the five LLs, (b) the analyses in both studies may have been affected by the choice of measures used (see the Measurement of LLs and Measurement of Relational Satisfaction subsections below), and (c) the latter researchers erroneously cited Chapman as saying that "couples with aligned primary LLs, *where both partners have a preference for the same language* [emphasis added], should be the most apt at expressing and receiving love between one another" (Bunt & Hazelwood, 2017, p. 282). In actuality, Chapman (2015a) emphasized that partners "seldom . . . have the same primary emotional love language" and "the important thing is to speak the LL of [one's partner]" (p. 16).

Finally, Polk and Egbert (2013) noted a total or partial mismatch in the majority (74%) of cases between the LL that the participants reported expressing most often and the LL that their partners reported they preferred to receive; in contrast, only 27% of couples matched on the LLs they both used and preferred to receive. "These findings suggest Chapman was on to something about partners often not giving one another's preferred LL" (p. 7). Also, congruent with Chapman's observations, the researchers found that in almost half (45%) of couples, *both* partners expressed affection in the LL that they preferred to receive love themselves instead of that preferred by their partner. Interestingly, both matched and mismatched couples reported (a) greater consistency in their individual-level assessments of relational quality than partially

matched couples as well as (b) consistently higher ratings of relational quality than partially matched couples. Although this did not directly support Chapman's theory, the authors suggested that this result did make sense through the lens of equity theory: "As long as both partners feel under-benefitted, they may not experience diminished relational quality" (p. 8). The authors concluded that future research could explore the relationship between specific combinations of LL preferences in couples and relational quality, which was the primary intent behind this study.

### Purpose and Contributions of This Study

In this exploratory study, multivariate clustering procedures were used to identify profiles of specific *combinations* of Chapman's (2015a) LLs in couples with the couple serving as the unit of analysis. The relationship between the resulting four-cluster solution and couples' reported levels of global relational quality also was explored. Given the aforementioned "significant methodological limitations" (Bunt & Hazelwood, 2017, p. 281) of several of the extant LL studies, this study makes a number of contributions to the emerging body of literature on the LLs that have implications for both helping professionals and academic psychologists.

### Multivariate Methodology

First, although this is not the first study to use the couple as the unit of analysis, it is the only study to date that gives attention to all five LLs simultaneously rather than simply focusing on the preferred LL of each member of the couple. This multivariate approach enabled a focus on how primary LLs (i.e., how participants prefer to receive affection from their partner) are relatively situated *against the other four*. This is consistent with Chapman's (2015a) assertion that it is "not uncommon" for individuals "to have two high scores, although one language does have a slight edge for most people" (p. 202) and that the LLs should be listed "in order of importance" when determining one's primary LL (p. 126). He also cautioned against "[dismissing the] other languages as insignificant" insofar as one's partner "may express love in those ways, and it will be helpful . . . to understand this about" one's partner (p. 202).

Rather than focusing specifically on individual partner LL scores, this study focused principally on *differences* found within *the combinations* of LL scores between the male and female members within the couple.

### Focus on Gender

Chapman (2015a) has called for research “to discover if certain LLs are gender-slanted” (p. 177). Accordingly, this study is the first to explore the relative strength of males’ and females’ preferences for each LL.

### Sampling

In contrast with the majority of extant LL studies that involved only convenience samples consisting of college students (Egbert & Polk, 2006; Goff et al., 2007; Polk & Egbert, 2013) or a singular sample of married couples (Thatcher, 2004; Veale, 2006), couples in this study (like those in Bunt and Hazelwood’s [2017] study) were recruited from both the student population and throughout the community in an effort to include the most diverse sample possible.

### Measurement of LLs

This study is only one of two to date that have used Chapman’s (2015b) Love Languages Personal Profile for Couples (LLPP). In contrast, several of the extant studies (Bunt & Hazelwood, 2017; Egbert & Polk, 2006; Polk & Egbert, 2013) used Egbert and Polk’s (2006) Love Languages Scale (LLS), which contained measurement issues acknowledged by the scale’s authors that may have affected the results of previous studies. First, the authors admitted that the four 5-point Likert items per LL on the LLS are “too conceptually broad” and could be better “defined by adding . . . concrete phrases” (Egbert & Polk, 2006, p. 25). In contrast, the 12 items per LL on the LLPP were written by Chapman, contain more specific item wording, and generally better reflect the nuances of his model. Second, whereas the LLS items focus on how individuals *express* love, the LLPP items focus on individuals’ preferences for *receiving* love, which is conceptually closer to Chapman’s model. Third, Polk and Egbert (2013) observed that participants’ self-selection of one primary LL “did not always correspond with the highest mean score of the five LLS dimensions”

(p. 4). In contrast, Veale (2006) noted that 90% of participants reported that the LLPP accurately identified their primary LL. Fourth, whereas the LLS remains relatively obscure outside academe, the LLPP is a public domain measure that is commonly used by helping professionals in everyday practice.

### Measurement of Relational Satisfaction

Although for most research involving couples, it would be apt to include a more comprehensive measure of the myriad dimensions of relational *quality*, in this study, the Revised Kansas Marital Satisfaction Scale (RKMSS; Akagi, Schumm, & Bergen, 2003) was selected because of its specific concentration on relational *satisfaction*. Arguably, the content of the RKMSS items is comparable with Chapman’s (2015a) use of a lay-friendly scaling question to assess “How full is your love tank?” (p. 184). Moreover, although most relational quality scales typically include items involving communication, time together, and affectional expression as components of relational quality, Chapman treats them as specific LLs (in this case, Words of Affirmation, Quality Time, and Physical Touch, respectively). In contrast, the RKMSS contains no items that refer to any specific LL(s) and that therefore could bias the relational quality score. The use of the Dyadic Adjustment Scale (Spanier, 1976) in previous studies (Bunt & Hazelwood, 2017; Thatcher, 2004) may have affected the results insofar as several of its items directly reflect specific LLs.

In addition, the Dyadic Adjustment Scale provides only a snapshot of relational satisfaction at the time of data collection. On the other hand, this study used the RKMSS based on its ability to *globally* assess “perceived changes in [partner relationship] satisfaction” over time (Akagi et al., 2003, p. 1274). This is congruent with Chapman’s (2015a) emphasis on the developmental unfolding of quality relationships that mirrors extant literature on the *process-oriented* progression from romantic idealization to more mature companionate love (as discussed earlier).

Furthermore, as noted earlier, other extant LL studies either (a) used an instrument (i.e., the Quality of Relationships Inventory; Pierce, 1994) that was not specific to intimate relationships but rather could be applied to a parent or

neighbor as well as to a partner (Polk & Egbert, 2013) or (b) involved no formal measure of relational satisfaction at all (Veale, 2006). Given this study's diverse sample in conjunction with an effort to be neither too general nor too specific, the RKMSS items were deemed appropriate for both unmarried and married couples, whereas most other relationship quality scales include items that are relevant only for the latter.

## Method

### Participants

The initial sample consisted of  $N = 123$  couples. There were 37 (30%) couples who completed the questionnaire by hand in person, whereas 86 (70%) completed it online. A total of 23 (19%) of the couples' data were subsequently removed for one of the following reasons: (a) informed consent was electronically signed but no data were provided for either partner ( $n = 2$ , 2%), (b) only one partner completed the questionnaire ( $n = 6$ , 5%) or there was evidence of random responding from one partner ( $n = 1$ , 1%), (c) instruments contained unanswered items for one or both partners ( $n = 12$ , 10%), and (d) participants did not meet the specified recruitment criteria ( $n = 2$ , 2%). This resulted in a final  $N$  of 100 couples. Given the practical issues associated with obtaining a suitable sample for couples' research (e.g., the general difficulty "obtaining the willingness of both partners"; Olson & Miller, 2014, p. 80) in conjunction with the fact that cluster analysis does not require a minimum number of participants for ample statistical power, this sample was deemed suitable for this exploratory study.

Because the unit of analysis was the couple (not the individual), an average age was calculated from the man and woman from each dyad, which served as a measure of the age of the couple. Those ages ranged from 18 to 80 ( $M = 28.48$ ,  $SD = 14.40$ ). The sample was relatively young, however, with 62% ( $n = 62$ ) of the couples having an average age of 25 or less, and 77% ( $n = 77$ ) being 30 or younger. Only 9% ( $n = 9$ ) were between 50 and 80. Of the 200 individuals making up the 100 couples, 76% ( $n = 152$ ) were White, 8% ( $n = 15$ ) were Black, 8% ( $n = 16$ ) were Hispanic, with the remainder being either multiracial or another ethnicity

( $n = 17$ , 9%). At the individual level, slightly over half of the 200 total people in the sample ( $n = 111$ , 56%) were currently pursuing an undergraduate education, 19 (10%) were pursuing a graduate degree, 26 (13%) held a bachelor's degree, 24 (12%) had completed a graduate degree, and four had either completed, or were working toward, more than one graduate degree. One person did not finish high school and 10 (5%) had no education beyond earning a high school diploma. Data concerning years of education were not available for five participants.

### Instruments

**Love languages.** The 30-item LLPP (Chapman, 2015b) was used to develop ipsative profiles of partners' LL preferences. Each forced-choice item consisted of two options, each representing a different LL; participants selected which of the two statements best depicted what was most meaningful to them the majority of the time in their relationship. There were 12 statements for each LL, and each LL was paired three times with a counterpart LL. As an example, the Words of Affirmation LL was assessed from three items that offered a choice between Words of Affirmation and Quality Time, three between Words of Affirmation and Receiving Gifts, three between Words of Affirmation and Acts of Service, and three between Words of Affirmation and Physical Touch. Scores were then tallied to arrive at a total score between 0 and 12 for each LL. Participants' highest score indicates their primary LL.

**Relationship quality/distress.** The three-item RKMSS (Akagi et al., 2003) was used to identify individuals in relationship distress. Using a 7-point Likert scale, participants rated how satisfied they were with their relationship at present, the way it was developing, and the way it had developed since it began. Potential scores range from 3 to 21, and a cutoff score of 16 or below indicated the potential for relational distress (Crane, Middleton, & Bean, 2000). A Cronbach's  $\alpha$  of .93 has been obtained for the RKMSS (Akagi et al., 2003).

### Procedure

After receiving institutional review board approval from the first author's university, data were collected between April and December 2017. Consistent with extant studies on the LLs



(Egbert & Polk, 2006; Polk & Egbert, 2013), participating couples only included individuals who were aged 18 years or older and in a current committed relationship (i.e., either dating, engaged, or married) for at least 2 months. To avoid introducing a potentially confounding variable, only heterosexual, cisgender couples were included in the study insofar as gender and/or sexually diverse individuals may well represent a different population.

Participants were recruited nationwide via electronic announcements posted to university and community message boards and/or distributed by the designated contacts for churches, support groups, and professional organizations who agreed to disseminate recruitment messages. Thereafter, snowball sampling was used. Participants were informed that the authors were not affiliated with Chapman or his publishing company, and they had the option to participate in a drawing for either a gift card or a copy of Chapman's (2015a) book. Participating couples completed the questionnaire either by hand (presenting together to data collection sessions held at the first author's university campus) or online (via anonymous Qualtrics survey, with both partners completing the questionnaire in a single sitting, one partner at a time, back-to-back manner).

### Relationship Duration and Satisfaction

The majority of the couples ( $n = 64$ , 64%) were currently dating, 30 (30%) were married, and six (6%) were engaged. The couples reported being in their current relationship between less than 1 year to 57 years ( $M = 6.90$ ,  $SD = 11.34$ ). Most couples ( $n = 21$ , 21%) had been in their current relationship less than 1 year.

As noted earlier, relationship quality was measured with the RKMSS (Akagi et al., 2003). A paired-samples  $t$  test revealed no difference in satisfaction between the women ( $M = 18.60$ ,  $SD = 2.95$ ) and the men ( $M = 18.19$ ,  $SD = 3.07$ ) within each couple,  $t(99) = 1.48$ ,  $p = .143$ ,  $d = .14$ . (All tests of significance were two-tailed.)

The RKMSS was used to identify individuals in relationship distress, using Crane et al.'s (2000) criteria that scores of 16 or less indicate the potential for relational distress. Crane et al. noted the value of a single cutoff score for

distinguishing between distressed and nondistressed participants in relationship research to more accurately identify the research population and more specifically discuss the study's implications (e.g., for clinicians, it enables appropriate application of differential treatment). In the current study, the male and female members of 80 couples (80%) indicated agreement in terms of distress. Specifically, for 70 of the couples (70%), both the male and female members indicated they were not in distress, and both members of 10 couples (10%) indicated relationship distress. There was disagreement within the remaining 20 couples (20%). In 11 of those 20 couples, the female indicated distress, whereas the male did not. In the remaining nine couples, the male indicated relationship distress, whereas the female did not.

## Results

Statistical analyses were conducted via SPSS for Macintosh, Version 24. Clusters of couples were formed on the basis of their LL preferences.

### Clustering on the Difference Score

Given that the unit of analysis was the couple and that the focus of this inquiry was on differences *within the relationship*, it was necessary to create a composite variable that contained information about both the male and female scores of each couple. As such, a difference score was calculated for each of the five types of LLs. As an example, a difference score for Words of Affirmation was calculated by taking the woman's total Words of Affirmation score minus the man's total Words of Affirmation score, which served as the Words of Affirmation difference score for the couple.

Use of the difference score provided a considerable amount of descriptive information about each couple. First, consider the sign of the difference score. In the above example, a positive score would indicate that the Words of Affirmation LL was more meaningful to the woman, whereas a negative difference score would indicate the language was more meaningful to the man. Second, the magnitude of the difference score identifies the exact degree of difference. A difference score of zero indicates identical scores, and therefore identical levels of

importance, for both the man and woman within the couple. As such, the closer the difference score was to zero, the greater the level of agreement between the two members of the couple. Difference scores were calculated in this fashion for each of the LLs.

### Cluster Analysis

*Cluster analysis* is an umbrella term used for a number of multivariate statistical classification procedures. These analyses are used to empirically form groups of homogeneous objects by classifying initially undefined cases in such a way that objects in the same class are similar to one another (Aldenderfer & Blashfield, 1984; Everitt, 1979; SAS Institute, 2003). Put differently, the goal is to form groups that maximize both intragroup similarities and intergroup dissimilarities (Campbell & Johnson, 1997; Rinn, Mendaglio, Rudasill, & McQueen, 2010; for a nontechnical explanation of cluster analysis, see Hair & Black, 2000). For this analysis, clusters of couples were formed on the basis of their LL preferences by means of multivariate clustering procedures conducted on the difference scores for the LLs.

An initial analysis was conducted to check for outliers and multicollinearity. In multivariate clustering procedures, outliers are a problem in that they can distort the functioning of the clustering algorithms by showing up as clusters defined by only a few individuals (Anderberg, 1973). Examination of both the histograms and frequency distributions failed to identify any outliers of consequence. Multicollinearity is an issue in clustering procedures because variables that are multicollinear are implicitly more heavily weighted (Hair & Black, 2000; Hair, Black, Anderson, & Tatham, 2009). As such, the bi-

variate correlations among the difference scores were examined. The largest correlation was moderate,  $r(98) = -.57, p < .001$ . Additionally, all of the variables were conceptually distinct. As such, all LL difference scores were retained for inclusion in the analysis (Rinn, Reynolds, & McQueen, 2011).

Ward's method of hierarchical clustering was used to identify the number of clusters within the couples' types of LLs (Milligan & Cooper, 1985). In Monte Carlo studies of data with known cluster structures, Ward's method has been deemed superior in structure recovery (Milligan, 1981). Lorr (1983) reported that Ward's method is most effective when used with a Euclidian distance measure; as such, squared Euclidian distance was used as the measure of proximity (Rinn et al., 2011).

Examination of the clustering agglomeration coefficients coupled with the resulting dendrogram (see Figure 1) indicated potential three- and four-cluster solutions, which were subsequently examined. An analysis of the cluster centroids was conducted to aid in the interpretation of the clusters. Table 1 provides the cluster centroids for the three- and four-cluster solutions. The centroids were identical for Clusters 1 and 2 in both the three- and four-cluster solutions, whereas Clusters 3 and 4 were joined in the three-cluster solution.

Table 2 illustrates the results of the significance tests of the differences among the cluster centers for the Ward's cluster analysis. The variables varied in a statistically significant manner only in the four-cluster solution. Inspection of the cluster coefficients supported a four-cluster solution, which was retained and carried forward to a nonhierarchical analysis to achieve the final cluster solution (Rinn et al., 2011).

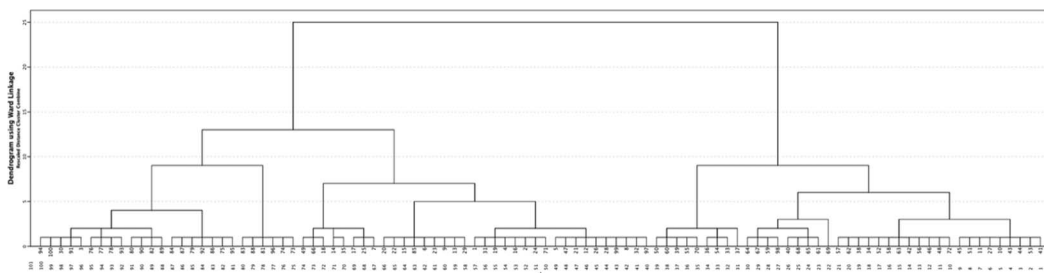


Figure 1. Dendrogram of the Ward's solution.

**Table 1**  
*Clustering Variable Mean Values From the Hierarchical and K-Means Cluster Analyses of Five Love Languages Difference Scores*

Cluster	Words of Affirmation	Quality Time	Receiving Gifts	Acts of Service	Physical Touch
Ward's hierarchical clustering					
Three-cluster solution:					
1	-1.00	-1.40	0.06	1.43	0.91
2	0.92	1.04	-0.27	-3.38	1.69
3	1.72	-0.92	0.69	2.49	-3.97
Four-cluster solution:					
1	-1.00	-1.40	0.06	1.43	0.91
2	0.92	1.04	-0.27	-3.38	1.69
3	2.30	-0.37	-0.13	1.53	-3.33
4	-0.22	-2.78	3.44	5.67	-6.11
K-means clustering					
Four-cluster solution:					
1	-0.94	-1.00	-0.65	1.47	1.12
2	1.21	0.50	0.11	-3.46	1.64
3	2.50	-0.35	0.08	1.62	-3.85
4	-0.92	-2.41	3.25	5.33	-5.25

A nonhierarchical *K*-means cluster analysis then was conducted both as an independent check on the stability of the cluster solution and as a means of optimizing cluster membership.

The centroids from the Ward's method solution served as the initial seed points. Convergence occurred in four iterations. Information on the resulting cluster centroids can be found in [Table 1](#).

**Table 2**  
*Significance Testing of Differences Between Cluster Centers for the Hierarchical and K-Means Cluster Analyses*

Variable	Mean square	Degrees of freedom	Error mean square	Degrees of freedom	<i>F</i>
Hierarchical clustering:					
Three-cluster solution:					
Words of Affirmation	70.45	2	6.16	97	11.43**
Quality Time	48.12	2	5.92	97	8.13**
Receiving Gifts	7.93	2	5.11	97	0.22
Acts of Service	287.86	2	5.65	97	50.91**
Physical Touch	328.67	2	5.52	97	59.56**
Four-cluster solution:					
Words of Affirmation	61.65	3	5.77	96	10.69**
Quality Time	45.59	3	5.56	96	8.18**
Receiving Gifts	34.83	3	4.24	96	8.22**
Acts of Service	231.33	3	4.48	96	51.62**
Physical Touch	236.92	3	5.02	96	47.20**
K-means clustering:					
Four-cluster solution:					
Words of Affirmation	70.88	3	5.48	96	12.94**
Quality Time	26.85	3	6.14	96	4.37*
Receiving Gifts	45.54	3	3.90	96	11.67**
Acts of Service	261.31	3	3.54	96	73.73**
Physical Touch	257.00	3	4.39	96	58.52**

\*  $p < .01$ . \*\*  $p \leq .001$ , two tailed.

In comparing the clustering variable means of the Ward's and *K*-means methods, it was found that the profiles matched well. Table 2 shows that all variables in the *K*-means four-cluster solution varied in a statistically significant manner, as they did in the Ward's solution. The stability of the hierarchical and nonhierarchical methods confirmed the results of the four-cluster solution subject to theoretical and practical acceptance (Hair & Black, 2000; Hair et al., 2009; Rinn et al., 2011).

Cluster centroids of the final four-cluster solution are provided in Table 1 and illustrated graphically in Figure 2. Because the ultimate purpose of this study was to explore differences between the male and female members of intimate couples, the means on each of the LLs for both males and females across the resulting four clusters were assessed. Results are detailed in Table 3 and illustrated graphically in Figure 3. To aid in interpretation, Table 3 contains not only means for both men and women, but also the mean difference score (calculated as female mean minus male mean), as well as Cohen's *d* effect size (Cohen, 1988). Cohen's *d* is in the metric of standard deviation. For example, a negative mean difference with *d* = 0.50 would indicate the mean for men was one half of a standard deviation higher than the mean for women on that particular LL.

## Interpretation of the Resulting Four-Cluster Solution

An examination of the information in Table 3 and Figure 3 was conducted to ascertain the nature of the resulting four clusters. The clusters are as follows.

**Cluster 1: Relative Congruence.** Cluster 1 ( $n = 34$ ) was composed of couples that were in relative agreement about what LLs they regarded as most meaningful to receive affection. As a result, this cluster was labeled *Relative Congruence*.

Quality Time appeared to be the primary LL for most of the men ( $M = 8.05$ ,  $SD = 1.48$ ) and the women ( $M = 9.05$ ,  $SD = 1.81$ ) in this cluster. With one exception, the overall mean differences were relatively small ( $-.94$  to  $1.12$ ), with effect sizes ranging from  $.15$  to  $.49$ . According to Cohen's (1988) general guidelines, a *d* of 0.20 indicates a small difference, 0.50 a medium difference, and 0.80 a large difference. The resulting effect sizes for these differences in this cluster indicate small to moderate differences. The exception to this trend was Acts of Service, the largest mean difference on this cluster, which was more important to women ( $M = 7.32$ ,  $SD = 2.24$ ) than men ( $M = 5.85$ ,  $SD = 2.16$ ),  $d = 0.67$ , indicating that women on

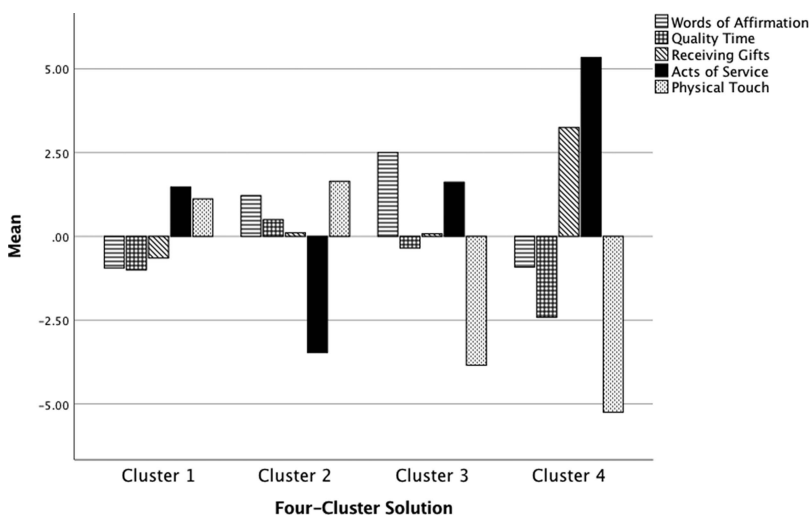


Figure 2. Graphical representation of the clustering variable means of the final four-cluster solution.

Table 3  
*Male and Female Descriptives Across the Final Four-Cluster Solution*

Cluster	Words of Affirmation	Quality Time	Receiving Gifts	Acts of Service	Physical Touch
Cluster 1 ( <i>n</i> = 34)					
Women ( <i>M</i> , <i>SD</i> )	6.00 (1.84)	8.05 (1.48)	1.44 (1.28)	7.32 (2.24)	7.18 (2.48)
Men ( <i>M</i> , <i>SD</i> )	6.94 (2.07)	9.05 (1.81)	2.08 (1.82)	5.85 (2.16)	6.06 (2.09)
Mean difference ( <i>d</i> <sup>a</sup> )	-0.94 (0.48)	-1.00 (0.15)	-0.64 (0.41)	<b>1.47 (0.67)</b>	1.12 (0.49)
Cluster 2 ( <i>n</i> = 28)					
Women ( <i>M</i> , <i>SD</i> )	7.21 (1.87)	8.43 (1.85)	2.39 (2.28)	4.82 (1.81)	7.14 (2.27)
Men ( <i>M</i> , <i>SD</i> )	6.00 (2.16)	7.93 (2.12)	2.29 (1.72)	8.29 (1.69)	5.50 (2.32)
Mean difference ( <i>d</i> <sup>a</sup> )	1.21 (0.60)	0.50 (0.25)	0.10 (0.05)	<b>-3.47 (1.99)</b>	1.64 (0.71)
Cluster 3 ( <i>n</i> = 26)					
Women ( <i>M</i> , <i>SD</i> )	7.23 (1.48)	8.58 (2.00)	2.73 (1.95)	7.38 (1.65)	4.08 (1.83)
Men ( <i>M</i> , <i>SD</i> )	4.73 (1.82)	8.92 (1.70)	2.65 (2.13)	5.77 (1.77)	7.92 (2.00)
Mean difference ( <i>d</i> <sup>a</sup> )	2.50 (1.51)	-0.34 (0.18)	0.08 (0.04)	1.61 (0.94)	<b>-3.84 (2.00)</b>
Cluster 4 ( <i>n</i> = 12)					
Women ( <i>M</i> , <i>SD</i> )	6.08 (1.51)	6.92 (2.23)	4.42 (2.15)	9.50 (1.83)	3.08 (1.56)
Men ( <i>M</i> , <i>SD</i> )	7.00 (1.65)	9.33 (1.67)	1.17 (0.94)	4.17 (1.59)	8.33 (1.37)
Mean difference ( <i>d</i> <sup>a</sup> )	-0.92 (0.58)	-2.41 (1.22)	3.25 (1.96)	<b>5.33 (3.11)</b>	<b>-5.25 (3.58)</b>

*Note.* Pooled standard deviations were used in the calculations. Bold type indicates the largest mean difference for that cluster.

<sup>a</sup> Cohen's *d* effect size.

average rated Acts of Service almost .70 *SD* higher than men.

**Cluster 2: Quality Time Both/Service Mainly Men.** The most salient feature of Cluster 2 (*n* = 28) involved Acts of Service, which appeared to be the primary LL for most men (*M* = 8.29, *SD* = 1.69) and also had the largest mean difference in this cluster, being considerably more important to men than to women (*M* = 4.82, *SD* = 1.81), *d* = 1.99. Quality Time appeared to be the primary LL for most women (*M* = 8.43, *SD* = 1.85) in this cluster, with which men were generally in agreement regarding its importance (*M* = 7.93, *SD* = 2.12), *d* = 0.25. This cluster was therefore named *Quality Time Both/Service Mainly Men*.

**Cluster 3: Quality Time Both/Touch Mainly Men/Words Mainly Women.** In Cluster 3 (*n* = 26), both men (*M* = 8.92, *SD* = 1.70) and women (*M* = 8.58, *SD* = 2.00) valued Quality Time the most and were in relative agreement, *d* = 0.18, making it the primary LL for both sexes on this cluster. The largest discrepancy between men and women concerned Physical Touch, which was considerably more important to the men in this group (*M* = 7.92, *SD* = 2.00) than the women (*M* = 4.08, *SD* = 1.83), *d* = 2.00. A close second was Words of Affirmation,

which was more important to women (*M* = 7.23, *SD* = 1.48) than men (*M* = 4.73, *SD* = 1.82), *d* = 1.51. This cluster was therefore named *Quality Time Both/Touch Mainly Men/ Words Mainly Women*.

**Cluster 4: Relative Incongruence.** Overall, the men and women in Cluster 4 (*n* = 12) exhibited the greatest incongruity in how LLs were valued by partners of each sex, and as such was termed *Relative Incongruence*. With one exception, the mean differences (-2.41 to 5.33) and the effect sizes (1.22 to 3.58) were some of the largest. Within this cluster, Acts of Service yielded the largest raw mean difference (5.33), and Physical Touch provided the largest effect size (*d* = 3.58). More specifically, Acts of Service were considerably more important to women (*M* = 9.50, *SD* = 1.83) than to men (*M* = 4.17, *SD* = 1.59), *d* = 3.11, and it appeared to be the primary LL for most women in this cluster. Conversely, Quality Time was more important to men (*M* = 9.33, *SD* = 1.67) than to women (*M* = 6.92, *SD* = 2.23), *d* = 1.22, and appeared to be the primary LL for most men in this cluster. Additionally, Receiving Gifts was more important to women (*M* = 4.42, *SD* = 2.15) than to men (*M* = 1.17, *SD* = .94), *d* = 1.96, and Physical Touch was substantially more important to men (*M* = 8.33,

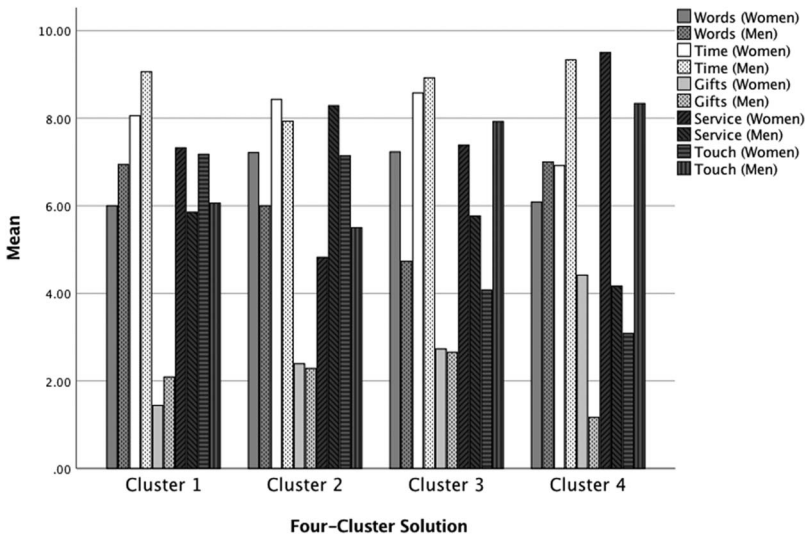


Figure 3. Male and female descriptives across the final four-cluster solution.

$SD = 1.37$ ) than to women ( $M = 3.08$ ,  $SD = 1.56$ ),  $d = 3.58$ . In this cluster, the difference in Words of Affirmation was relatively small compared with the other LLs, with it being somewhat more important to men ( $M = 7.00$ ,  $SD = 1.65$ ) than to women ( $M = 6.08$ ,  $SD = 1.51$ ),  $d = .58$ .

### Differences in Relational Satisfaction Across the Four Clusters

Using the RKMSS, couples were identified in terms of relationship distress and divided into the following profiles:

1. Female Not Distressed/Male Not Distressed (*No Distress*;  $n = 70$ )
2. Female Distressed/Male Not Distressed (*Female Distressed*;  $n = 9$ )
3. Male Distressed/Female Not Distressed (*Male Distressed*;  $n = 11$ )
4. Both Male and Female Distressed (*Couple Distressed*;  $n = 10$ )

A 4 (Cluster Membership)  $\times$  4 (Distress Profile) chi-square revealed no significant differences among the four clusters,  $\chi^2(9, N = 100) = 9.09$ ,  $p = .429$ . Table 4 provides the number of each of the categories of relationship distress across the four clusters. Although no significant differences were found in the number of distress profiles across the four clusters,

the sample was considerably lacking in variability insofar as the vast majority of couples were not in distress ( $n = 70$ , 70%). However, given the exploratory nature of this study and that greater variability within this variable might have led to statistical significance, some noteworthy findings warrant attention.

Of the couples in Cluster 1, 82% ( $n = 28$ ) reported no distress whereas only 18% ( $n = 6$ ) of couples had either one or both partners reporting distress. The mean RKMSS score was 18.97 ( $SD = 2.39$ ) for men and 19.12 ( $SD = 2.75$ ) for women in this cluster. Conversely, only 50% ( $n = 6$ ) of the couples in Cluster 4 reported no distress, whereas 33% of men ( $n = 4$ ) and 25% of women ( $n = 3$ ) reported distress, with more men alone (25%,  $n = 3$ ) reporting distress than either women alone (17%,  $n = 2$ ) or both partners (8%,  $n = 1$ ). Here, the mean RKMSS score was 16.17 ( $SD = 5.10$ ) for men and 16.92 ( $SD = 4.64$ ) for women.

Cluster 2 had the most instances of both partners (14%,  $n = 4$ ) reporting distress, with men (25%,  $n = 7$ ) being more inclined to report distress than women (18%,  $n = 5$ ). In this case, the mean RKMSS score was 17.82 ( $SD = 2.19$ ) for men and 18.68 ( $SD = 2.13$ ) for women.

In contrast, women (27%,  $n = 7$ ) reported distress more often than men (23%,  $n = 6$ ) in Cluster 3, with more women reporting distress on

Table 4  
*Profiles of Distressed Couples Across the Four Cluster Solution*

Cluster	Men distressed	Women distressed	Couple distressed	No distress
Cluster 1. Relative Congruence ( $n = 34$ )	2 (6%)	2 (6%)	2 (6%)	28 (82%)
Cluster 2. Quality Time Both/Service Mainly Men ( $n = 28$ )	3 (11%)	1 (4%)	4 (14%)	20 (71%)
Cluster 3. Quality Time Both/Touch Mainly Men/Words Mainly Women ( $n = 26$ )	3 (12%)	4 (15%)	3 (12%)	16 (62%)
Cluster 4. Relative Incongruence ( $n = 12$ )	3 (25%)	2 (17%)	1 (8%)	6 (50%)

their own (15%,  $n = 4$ ) than men alone (12%,  $n = 3$ ) or both partners (12%,  $n = 3$ ). The mean RKMSS score was 18.50 ( $SD = 3.17$ ) for men and 18.62 ( $SD = 2.91$ ) for women.

### Discussion

Overall, Quality Time appeared to be a primary LL across all four clusters; it had the highest means for both partners in Clusters 1 and 3, for women (closely aligned with men) in Cluster 2, and for men in Cluster 4. Acts of Service appeared to be a primary LL for men in Cluster 2 and for women in Cluster 4. Receiving Gifts had the lowest means for both men and women across the first three clusters; in Cluster 4, it was generally valued more by women than Physical Touch. With one exception, Acts of Service had the greatest mean differences across the clusters. Physical Touch had a greater mean difference in Cluster 3, as well as the greatest Cohen's  $d$  effect size in Cluster 4.

Chapman (2015a) speculated that "anecdotal evidence suggests that more men have Physical Touch and Words of Affirmation as their LL and more women have Quality Time and Receiving Gifts"; however, he acknowledged that he was unsure "if that's statistically accurate" (p. 177). Indeed, in this study, Physical Touch was rated higher by men in instances in which differences were more pronounced (Clusters 3 and 4)—although it was not a primary LL in any cluster. Similarly, in the single occurrence (Cluster 4) in which Receiving Gifts was reported as somewhat meaningful to participants, it was preferred by women. On the other hand, Words of Affirmation and Quality Time appeared more gender-neutral, which is how Chapman "prefers to deal with the LLs" (p. 177).

Although no significant differences were found in the number of distress profiles across

the four clusters, it is quite likely due in part to insufficient variability, given that the vast majority of individuals, and couples, in the sample presented as nondistressed. However, a general trend emerged that deserves consideration: The more congruency in LL preference within the couple, the less likely couples were found to report being distressed in the relationship. Consider how Cluster 1 showed the most relative congruence between partners across the five LLs, and it was composed of the lowest proportion of distressed couples. In contrast, the least congruence across the five LLs occurred on Cluster 4, which had the highest proportion of relational distress and the lowest RKMSS means. Furthermore, slightly more distress was reported among the participants in Cluster 3 (in which more specific gender-based preferences were noted, i.e., *Quality Time Both/Touch Mainly Men/Words Mainly Women*) compared with those in Cluster 2 (*Quality Time Both/Service Mainly Men*).

In Cluster 1, Quality Time (i.e., undivided attention, reflective listening, self-disclosure, intentional engagement in mutually enjoyable activities) was reported as valued most by both partners. This echoes Schoenfeld, Bredow, and Huston's (2012) empirical finding that "contrary to the notion that women are more inclined than men to show love through affection, [men] were just as likely as [women] to express their love by engaging in warm, intimate behaviors" (p. 1405). Furthermore, as noted, relational satisfaction tended to be highest on this cluster. Although it may be tempting to associate this finding with Quality Time, it is worth noting that whereas North American couples employ "spending time together" as "an important maintenance strategy" (Aron & Aron, 1997, p. 258), Beichen and Murshed's (2015) research suggested that East Asian couples are more likely to use gift-giving (which was the least

meaningful LL in this sample) throughout relationship stages. Thus, it seems likely that although there is a general universal validity of Chapman's five LLs (as discussed earlier), the relative importance of each may vary across cultural contexts. As such, the resulting cluster profiles of this study may well be culture specific.

Instead, differences in LL scores for all but one of the remaining love languages on Cluster 1 were less than half a standard deviation apart. It seems that the highest proportion of relational satisfaction being reported among the couples in Cluster 1 could be attributable to Firestone and Catlett's (1999) observation that "it is advantageous for partners to have similar goals with respect to their personal relationship as well as to share basic values, beliefs, and philosophies of life" (p. 93). In addition, that outcome seems to echo empirical findings that "similarity between partners reduces conflicts" (Acitelli, Kenny, & Weiner, 2001, p. 180) and that perceived similarity in (a) motives for being involved in the relationship (Hagemeyer, Nemberich, Asendorpf, & Neyer, 2013), (b) personality (Furler, Gomez, & Grob, 2014; Hudson & Fraley, 2014), and (c) political attitudes and personal values (Leikas, Ilmarinen, Verkasalo, Vartiainen, & Lönnqvist, 2018) is linked to increased relationship satisfaction. Moreover, whereas high relationship satisfaction typically is associated with secure attachment (see Egeci & Gençöz, 2006) and with feeling understood during conflict (Gordon & Chen, 2016), it also has been found among partners with similar attachment orientations, such as avoidant with avoidant, insofar as the relationship provides opportunities for similar relationship goals (Reizer, Ein-Dor, & Shaver, 2014) that result in "greater satisfaction when [the partners] avoid discussion and conflict" (Sened, Lavidor, Lazarus, Bar-Kalifa, Rafaeli, & Ickes, 2017, p. 742). Accordingly, additional research exploring the connections between LLs and attachment styles within couples could help shed light on whether this dynamic may have been at play in Cluster 1.

Alternatively, in addition to mere similarity (see Aron et al., 2004), it seems plausible that given the orientation to process, self-expansion, and inclusion of the other in the self (Aron & Aron, 1996, 1997; Aron et al., 2004, 2013) in Chapman's (2015a) model (as surveyed earlier), the limited differences in Cluster 1 also might

reflect at least some participants not only sharing a primary LL but perhaps also having become more adept at "taking the perspective or identity of the other" (Aron et al., 2004, p. 34) and incorporating the secondary LLs preferred by their partners into their own sense of self. This provides and fulfills opportunities for novelty and arousal/excitement (i.e., awakening; Welwood, 1996) of underdeveloped aspects of each partner's personality (Aron & Aron, 1997) that result in a broadening of one's perceptual field to include "not me" in "me" (Combs, 1999). Accordingly, self-expansion sustains relational satisfaction and commitment (McIntyre, Mattingly, & Lewandowski, 2015)—particularly when individuals receive active support for self-expansion from their partners (Fivecoat, Tomlinson, Aron, & Capriello, 2015)—insofar as it decreases the likelihood of "[making] the other idealized again" (Aron et al., 1998, p. 8) and/or of "boredom in the relationship" (Aron & Aron, 1996, p. 54). Additional research is recommended to assess the validity of the relationship between partners' LL congruence, self-expansion, and relational satisfaction.

In contrast, in Clusters 2 and 4, men's and women's preferences generally were inverse of one another. In the former, Acts of Service were valued considerably more by men and Quality Time slightly more by women. In the latter, Acts of Service were valued considerably more by women and Quality Time more by men. Additional research is recommended to explore the degree to which this finding might be related to Bowenian *emotional cutoff* (see Norona & Welsh, 2016) and/or attachment dynamics. Could the pattern in Cluster 2 reflect socialized self-reliance, which is associated with both attachment avoidance and lower relational satisfaction in men (Fitzpatrick & LaFontaine, 2017), the latter of which was more salient among the men in that cluster? Moreover, relationships in which men show attachment anxiety and women attachment avoidance—which runs counter to traditional masculine and feminine gender roles, at least in Euro American society—tend to have difficulty (Kirkpatrick & Davis, 1994; also see Smith, Ciarrochi, & Heaven, 2008; Welwood, 1990). That said, it also is worth noting that in Cluster 4, Receiving Gifts was valued more by women than Physical Touch, which might have reflected these wom-



en's preference for material objects over human contact based on avoidant attachment dynamics (see Siegel, 2012). Additional research could explore whether (a) the association between relative incongruence and distress in Cluster 4 may be related to *self-contraction* ("the loss or diminishment of positive self-concept content" which can diminish relational quality; McIntyre et al., 2015, p. 860) insofar as partners' respective LLs are not validated by the relationship and (b) avoidance motivation in one of the partners in Clusters 2 and/or 4 may interfere with the other partner's opportunities for self-expansion (see Mattingly, McIntyre, & Lewandowski, 2012).

Furthermore, Cluster 3 is noteworthy in that it is the only cluster in which (a) Physical Touch (rather than Acts of Service) had the greatest mean difference (equaling 2 *SD*), being preferred more by men, (b) Words of Affirmation had a substantial mean difference and effect size, being preferred more by women, and (c) more women reported relational distress than men. It seems plausible that this distress could reflect differences in how physical and emotional intimacy are approached respectively by men and women in these couples. Whereas "sex seems to be an important channel through which men express loving feelings," for women, love is "*inversely* associated with sexual initiation" (Schoenfeld et al., 2012, p. 1405; also see Yoo, Bartle-Haring, Day, & Gangamma, 2014). Moreover, men with higher degrees of alexithymia are more likely to fear their partners' intimate emotions and, having limited emotional vocabulary, are less likely to communicate effectively with their partners (Karakis & Levant, 2012). Furthermore, shyness has been found to be negatively associated with both self-disclosure and empathy and therefore with relationship satisfaction (Luster, Nelson, & Busby, 2013).

### Clinical Implications

Beginning during the 1990s, around the time that Chapman's (2015a) *The Five Love Languages* was initially published, the focus of psychological theorizing on intimate relationships shifted from conflict reduction toward the significance of the relationship as a transformative platform (Fincham, Stanley, & Beach, 2007) for each partner to contribute to the oth-

er's personal growth rather than survive together in rigidly defined roles (Welwood, 1996). Quality relationships came to be defined less by absence of conflict but rather by couples' commitment to a collaborative partnership (Fincham et al., 2007) centered around values including friendship, loyalty, generosity, and justice (Fowers, 2000) and "commitment to a process" (Welwood, 1990, p. 184). To illustrate, partners who reported higher levels of relational quality tended to acknowledge that the attributes they valued most in their partners emerged *from the relationship*, rather than those that initially attracted them to each other (Thompson-Hayes & Webb, 2008).

Accordingly, couples therapists (Fowers, 2000; Gottman, Coan, Carrere, & Swanson, 1998; Johnson & Bradbury, 2015; Welwood, 1990) have cautioned that despite its "appealing . . . logic and simplicity," unilaterally providing prescriptive, behaviorally based technical indoctrination in couples' problem-solving and/or conflict resolution skills results in "inconsistent effects on communication and unexpectedly small effects on relationship outcomes" (Johnson & Bradbury, 2015, pp. 19, 13). In the meantime, "some partners might feel invalidated if their therapist does not spend enough time addressing what really matters to them in terms of their intimacy issues" (Yoo et al., 2014, p. 289). Instead, they recommend "helping partners accept [each other] as they are" (Gottman et al., 1998, p. 20) via individualized interventions that "articulate how diverse contexts . . . constrain couples' opportunities for closeness and stability" (Johnson & Bradbury, 2015, p. 13). Likewise, rather than mere satisfaction being the goal of therapy, Gordon and Baucom (2009) advocated for promoting "relationship flourishing," which subsumes satisfaction but also includes intimacy and fulfillment as well as "realistically [coping] with negative processes" in relationships (p. 422). Furthermore, Yoo et al. (2014) recommended "creating a nonthreatening atmosphere in which partners feel safe" to "make their intimacy-related issues visible" and thereby enhance their "understanding of their mutuality and interdependence" (p. 289).

Applied to couples' therapy (as well as to relational issues within individual therapy), Chapman's (2015a) LL model is conducive to interventions unique to each couple based on their particular combination of LLs to assist

partners with meeting the goals outlined in the previous paragraph. Chapman's intuitive, lay-friendly conceptual motif is easily explained by therapists in a brief period of time and applied to the concrete specifics of clients' narratives. His LLPP (Chapman, 2015b) is an efficient assessment tool that clients may complete either on their own or with their partner and thereafter discuss similarities and differences in their scores. Thereafter, the LL model can be readily employed and/or referred back to throughout the therapeutic process to help clients identify strengths and areas for growth in their relationship as they negotiate both (a) day-to-day situations on a session-by-session basis and (b) the more process-oriented aspects of their work (e.g., accepting and appreciating each other as they are, identifying moments of homeostatic regression to the familiar as they tackle normative developmental tasks, etc.).

Additional research (qualitative, quantitative, and/or mixed methods) is recommended to demonstrate the effectiveness of transformative processes associated with the employment of the LL model in therapeutic practice. Given the theoretical connections discussed earlier, particular emphasis should be given to applying the LL model in conjunction with humanistic-existential (see Meneses & Scuka, 2016) and Bowenian (see Firestone et al., 2013) approaches to couples' therapy.

Furthermore, in light of Aron et al.'s (1998) observation that "attachment styles may represent different preferences for expansion in . . . relationships" (p. 10), future research could explore how combinations of LLs may reveal nuances of attachment dynamics (see Tang, 2015), as well as demand-withdraw patterns (see Li & Johnson, 2018; Papp et al., 2009), as they relate to self-expansion within relationships. This could provide descriptive guidelines for clinicians to collaboratively assist partners with a *second-order change* (see Smith-Acuña, 2011) process of overcoming problematic means of expressing their respective needs and expectations for the relationship; of better attending to, understanding, appreciating, and reciprocating the other's needs/expectations; and, thus, of creating a renewed dyadic narrative that transcends each of the partners' self-narratives and that complements and integrates the other's worldview into their own (Aron & Aron, 1997; Wellwood, 1990).

## Limitations

First, despite efforts to incorporate as varied a sample as possible by recruiting from the broader community and not just from a college convenience sample, given the aforementioned practical constraints of obtaining an adequate sample for couples' research (Olson & Miller, 2014), more than 75% of the sample were under the age of 30 years, and only 30% were married. Accordingly, due to the limited representation of older participants, there was insufficient variability in age and duration of relationship, which precluded an adequate assessment of generational issues and of differences between dating and married couples (given that the latter is the principal focus of Chapman's initial book on the LLs). Such variables are recommended as a focus of future study.

Second, most participants in this study were White, and their LL preferences may have reflected the values of their local communities. Given the high degree of diversity between communities in contemporary America (Chinni & Gimpel, 2010), additional research is needed within—and outside—the United States to reflect how "the *dialects* in which [the LLs] are spoken . . . differ from culture to culture" (Chapman, 2015a, p. 179).

Third, no study to date, including this one, has explored LLs using samples consisting of other-than-heterosexual and cisgender couples. Given Chapman's (2015a) emphasis on the LLs as "gender neutral," such exploration is warranted (p. 177).

Fourth, unlike some of the extant LL studies (Bunt & Hazelwood, 2017; Polk & Egbert, 2013), this study focused only on participants' reports regarding how they prefer to *receive* affection without exploring how they tend to *express* affection. To overcome the methodological limitations of the extant studies, further multivariate research could be conducted with the instruments used in this study to further assess the relationship between how LLs are valued by one partner and expressed by the other.

Fifth, as aforementioned, Crane et al. (2000) recommended using a single cutoff score to distinguish between distressed and nondistressed participants in relationship research to more accurately identify the research population and avoid overgeneralization of the results.

Similarly, Walsh (2012) cautioned against making “a theoretical leap from *description* of a sample . . . to the *prescription* of those patterns” (p. 6, emphasis added). Accordingly, in addition to considerations of cultural context discussed earlier, it is worth noting that 70% of the sample in this study consisted of nondistressed couples, whereas in only 10% of cases did both partners report relational distress. Although this study makes a contribution to the academic literature on LLs, given the utility of the LL model in relational counseling (Bunt & Hazelwood, 2017; Eckstein & Morrison, 1999), the results may not be as applicable to distressed couples. Thus, additional research specifically involving a clinical population is suggested.

Finally, although Chapman (2015a) alluded to the role of formative experiences in influencing one’s primary LL (LLs are “probably set in childhood” and “follow [individuals] into adulthood and into marriage,” pp. 51, 21) and to the tendency for LLs to “remain consistent” throughout the life span, he also suggested that “there are certain situations in life that make the other LLs extremely attractive” (p. 174). Additional research should explore the extent to which LLs are longitudinally reliable versus situationally malleable, as well as learned via formative experiences versus intrapersonally temperamental.

### Conclusion

In the current era, academicians are perceived by some as having “abandoned their duty to engage with the public [and having] retreated into jargon and irrelevance” (Nichols, 2017, p. 5). This study was an effort to provide further empirical exploration of Chapman’s (2015a) LL model, which has been given only limited attention in the academic psychology literature despite its attractiveness to laypeople and its clinical utility. The intent behind this study was not so much to establish the validity of Chapman’s model (which was accomplished by Egbert & Polk, 2006; Goff et al., 2007; and Polk & Egbert, 2013). Instead, given that its process-oriented aspects are already well-established via comparable theory and research (as summarized and/or cited throughout this article), this study provided exploratory data pertaining not only to men’s and women’s primary LLs but also to the *differences within the couple*, quantified via Co-

hen’s *d* effect sizes, across the *combination* of all five LLs as they appeared in couples. It was found that the profiles in the four-cluster solution matched well and varied in a statistically significant manner, each of which had unique characteristics that reflected extant theory and/or research. Although no significant differences were found in the number of distress profiles across the four clusters (likely due to insufficient variability based on a majority nondistressed sample), results did suggest possibilities worthy of discussion and that provide a foundation for further research.

For example, a general trend was noted in which couples were more likely to report satisfaction with their relationship the more their combination of LL preferences was congruent. This reflects existing literature that relationship satisfaction can become enhanced by similarity between partners (Acitelli et al., 2001; Furler et al., 2014; Hagemeyer et al., 2013; Hudson & Fraley, 2014; Leikas et al., 2018; Reizer et al., 2014) and/or by a relationship’s ability to offer opportunities for self-expansion (Aron et al., 1998; Fivecoat et al., 2015; McIntyre et al., 2015).

Thus, this research introduces the possibility that LLs may be a predictor of relational satisfaction, adding it to an emerging list that includes (a) appreciation of one’s partner’s strengths (Kashdan et al., 2018), (b) attachment security (Diamond, Brimhall, & Elliott, 2018; Egeci & Gençöz, 2006), (c) communication (Egeci & Gençöz, 2006; Gordon & Chen, 2016; Mark & Jozkowski, 2013; Yoo et al., 2014), (d) social support (Elegbede & Ogunleye, 2018), (e) emotional intelligence (Sened et al., 2017; Smith et al., 2008), (f) Adlerian birth order (Crain, 2017), (g) Bowenian *differentiation of self* (Norona & Welsh, 2016), (h) Big Five personality traits (Furler et al., 2014; Hudson & Fraley, 2014; Weidmann, Ledermann, & Grob, 2017), (i) political attitudes and personal values (Leikas et al., 2018), (j) work–life balance (Yucel, 2018), (k) sexual satisfaction (Fallis, Rehman, Woody, & Purdon, 2016; Mark & Jozkowski, 2013; Yoo et al., 2014), (l) perception of mate value (Hromatko, Bajoghli, Rebernjak, Joshaghani, & Tadinac, 2015), and (m) consistency between ideal standards and perceived attributes in one’s partner (Buyukcan-Tetik, Campbell, Finkenauer, Karremans, & Kappen, 2017). Conversely, detractors to relationship

satisfaction include (a) viewing one's partner's personality strengths as having significant costs (Kashdan et al., 2018), (b) incongruence of motives for being involved in the relationship (Hagemeyer et al., 2013), (c) hypermasculinity (Karakis & Levant, 2012; Lentz, 2017), and (d) inconsistent interpersonal behavior (Sadikaj et al., 2015), dominant behavior (Sadikaj, Moskowitz, & Zuroff, 2017), shyness (Luster et al., 2013), and depression (Li & Johnson, 2018) in one's partner.

Furthermore, this study makes a number of methodological contributions to an emerging body of literature on the LLs, and the results provide a more solid foundation for further research (suggestions provided throughout the article), particularly on how the LL model contributes to understanding the relationship between intimate relationships and self-development and self-expansion. Finally, it contributes to a "still limited" research base on partner acceptance (Buyukcan-Tetik et al., 2017).

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