



Articles

Psychometric Properties and Structures of Passionate and Companionate Love

Victor Karandashev*^a, Stuart Clapp^a

[a] Aquinas College, Grand Rapids, MI, USA.

Abstract

After many decades of romantic relationship research, there is a new focus on a multidimensional model of love. This empirical study examines the multidimensionality and psychometrics of Passionate and Companionate love, based on an extensive study of 413 participants using Multidimensional Love Scale (MLS). A new statistical approach employed in this study explores the typology and structure of love. The statistical approach included the combination of Two-Step Cluster Analysis of cases and Principle Component Analysis of dimensions while using centered variable scores. The results reveal a typology of love based on its multidimensional structure. Further analysis revealed two main types of love: Passionate and Companionate, both containing several factors allowing for interpretation of their multidimensional structures. The MLS subscales and detailed psychometric analysis measuring specific love dimensions are incorporated to allow further research in other studies.

Keywords: passionate love, companionate love, psychometrics, structure

Interpersona, 2016, Vol. 10(1), 56–76, doi:10.5964/ijpr.v10i1.210

Received: 2016-02-02. Accepted: 2016-05-12. Published (VoR): 2016-06-30.

*Corresponding author at: 1607 Robinson Road, SE, Academic Building 23 E, Grand Rapids, MI, 49506. E-mail: vk001@aquinas.edu



This is an open access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/3.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Introduction

The definition, typology, and dimensionality of love have broadened and deepened over years of psychological research. Researchers have made significant progress, but existing love theories and scales are still relatively simple and do not capture love's emotional complexity. Aron and Westbay (1996) emphasized this when they stated that love requires a more complex model; they explained the value of knowing the multiple dimensions of love. Over a decade later, Berscheid (2010) also noted that a demand is present for more comprehensive instruments in order to measure love. This appeal was our driving force in our attempt to measure comprehensively the complexity of love. Love is more complex than existing theories hold.

Passionate Love and Companionate Love are two of the most well-known types of love. Hatfield and Rapson (1993) go into detail describing passionate love as an experience associated with physiological processes, pleasure, pain, and relationship initiation. Passionate love is defined as:

A state of intense longing for union with another. Passionate love is a complex functional whole including appraisals or appreciations, subjective feelings, expressions patterned physiological processes, action

tendencies, and instrumental behaviors. Reciprocated love (union with the other) is associated with fulfillment and ecstasy; unrequited love (separation) with emptiness, anxiety, or despair (Hatfield & Rapson, 1993, p. 37)

Companionate love is described as valuing intimacy, commitment, and equality (Hatfield & Rapson, 1993) and is defined as:

...a complex functional whole including appraisals or appreciations, subjective feelings, expressions, patterned physiological processes, action tendencies, and instrumental behaviors (Hatfield & Rapson, 1993, p. 106).

They identified *Intimacy* and *Commitment* as dimensions of Companionate love. The scales they developed were not able to identify a dimensional structure of Passionate or Companionate Love (Hatfield & Rapson, 1993). We believe that the structure of these types of love are more complex and can be psychometrically explored. Therefore, our study explored the structure of these types of love in more detail providing a more comprehensive description of these types of love.

We believe that a scientific definition of love includes both Passionate and Companionate Love as multidimensional constructs. In this study, we followed both dimensional and typological approaches, assuming that certain dimensional combinations form different types of love. To achieve this goal, we applied the Multidimensional Love Scale (MLS) (Karandashev & Clapp, 2015), in attempts and to identify the dimensions comprising Passionate and Companionate Love. The purpose of this article is to explore the psychometrics and structure of Passionate and Companionate love. We will present detailed psychometrics and factor structure of Passionate and Companionate Love as revealed by the MLS (Table 1).

We considered the following definitive features of Passionate Love: Passion, Reciprocity, Protection, Unity, and Attraction, while definitive features of Companionate Love were: Relationship Investment, Care, Sharing, Intimacy, and Attachment. We assumed that the dimensions revealed from the MLS would group around these features.

From a topological view, we believed that Passionate and Companionate Love are not distinctively different types of love, but consist of the same feelings towards a partner, but in different degrees. We hypothesized that both types of love utilize the same thirty-three dimensions presented in Table 1, but that participants varying values of the different dimensions would determine the type of lover they are. We expected that the dimensions would relate to each other in different combinations within Passionate and Companionate Love.

The purpose of this study was to utilize data from our previous research in order to reveal factor structure of the (MLS). Data was analyzed using psychometrical scale analysis to identify validity and reliability, two-step cluster analysis in order to identify typological clusters of lovers, and factor analysis to understand the composition of dimensional structures.

Method

Participants

Participants' ages ranged from 18 to 70 ($M = 27.7$, $SD = 8.4$). Of the 413 participants, 59.1% were male, 74% of participants identified as Caucasian, 10.3% as African descent, 3.6% of Asian descent, 7% as Hispanic or Latino,

and 2.9% as Native American. Regarding the types of relationship, 18% reported being married, 40.4% engaged, 35.3% in committed dating relationships, and 4.6% in casual dating. Among the participants, 4.6% were in their romantic relationship 3 months or fewer, 20.7% were 3–6 months, 34.9% were 1–2 years, 31.5% were between 2 and 10 years, and 8.4% were more than 10 years. Participants were only eligible to take the survey if they were currently in a romantic relationship.

We used a convenience sample: participants were recruited specifically through local advertisements in Grand Rapids, MI, as well as online through social media. A majority of participants were students, even though there were many people from the local community and of different age groups. The survey was administered with a secure, internet based tool. Participants were also given a small, monetary compensation for their time upon completion.

Psychometric Properties of the MLS Scale

The MLS previously developed (Karandashev & Clapp, 2015) consisted of 266 items measuring 33 hypothesized dimensions of romantic relationships (see Table 1). The participants rated their feeling toward a partner on the items using a 1–5 Likert scale ranging from *strongly disagree* (1) to *strongly agree* (5). The validity of the MLS was presented extensively in our previous publication, (Karandashev & Clapp, 2015) and showed modest correlation of dimensions with rating of how much “in love” a participant is with their partner. Those results supported our theoretical assumption that there is no universal model of love. Love is a subjective feeling and can be related to different dimensions for different people.

The Cronbach Alpha (α) for all dimensions (Table 1) were excellent, good, or acceptable ranging from .70 to .90 (with exceptions of questionable reliability of 3 dimensions) supporting the reliability of these sub-scales. To show that each item loaded exclusively to a particular dimension, we computed bivariate correlations between item and total scores for dimensions/scale (means) (Table 1). Only those items that had substantially high correlation to a hypothesized sub-scale comparing to correlations with other sub-scales remained in a sub-scale. This statistical procedure validated that each item loads only one sub-scale (see Table 1 for highest correlations). To eliminate redundancy of items, we looked at the correlations between items within the same scale. Only one of those items that had very high correlation to each other was kept for further analysis. In several cases, the items correlated to two or more dimensions, but with lower correlation coefficients. This means that some items have overlapping loadings and cannot be used exclusively for one dimension. After all these statistical analyses, only 233 items on the MLS (out of 266) were left for further analysis. The descriptive statistics for those items are presented in Table 1. Several other types of statistical analysis were used to validate the 33 hypothesized dimensions (Karandashev & Clapp, 2015).

Table 1

Psychometrics of Multidimensional Love Scale

Dimension	Items in the dimension	<i>r</i> ^a	<i>M/SD</i>
Acceptance ($\alpha = 0.90$)	This person's lifestyle is acceptable.	.83	3.18/1.43
	I accept this person for who this person is.	.72	3.68/1.18
Consenting to welcome or a willingness to tolerate someone in a relationship	I respect this person's beliefs.	.77	3.50/1.36
	I like this person just the way s/he is.	.91	2.89/1.38
	I want this person to be with me. (Interest = .88, Affection = .87, Companionship = .85)	.89	3.16/1.45
	I respect this person as an individual and not an object of my desire.	.76	3.75/1.16
	Differences between this person and me (age, social status, financial status, etc.) do not limit our relationship.	.68	3.75/1.23
Admiration ($\alpha = 0.71$)	I can tolerate this person's interests, even if I do not like the interests.	.75	3.60/1.16
	I often dream about this person. (Attach Anxiety = .46)	.48	3.65/1.03
	I always thought this person was an amazing person.	.70	3.53/1.15
	Respectful attitude towards a romantic partner, making him/her impressive	.73	3.31/1.21
	I fall deeper in love with this person whenever I see him/her.	.73	3.31/1.21
Affection ($\alpha = 0.88$)	This person enchants me.	.71	3.36/1.14
	I want to be more like this person.	.55	3.07/1.12
	My affection towards this person is consistent despite of my mood.	.69	3.38/1.11
	I love this person more tenderly than I do anyone else.	.65	3.63/1.21
	Is a tender, joyful feeling of fondness toward a romantic partner	.73	3.69/1.25
	Physical contact with this person brings me joy.	.73	3.69/1.25
Attachment Anxiety ($\alpha = 0.70$)	I kiss this person passionately.	.88	3.03/1.44
	The little things this person does make me smile.	.79	3.45/1.36
	I would enjoy waking up and seeing this person.	.82	3.63/1.23
	I would unconditionally love a child with this person.	.78	3.62/1.15
	I often kiss this person impulsively.	.80	3.52/1.07
	I become anxious when I am apart from this person.	.45	3.18/1.18
	I am afraid to die because I would not be with this person.	.40	2.87/1.35
	Feelings of nervousness and apprehension about being abandoned by a romantic partner	.53	3.47/1.16
Comfort ($\alpha = 0.90$)	When I am not with this person my life is less enjoyable.	.53	3.47/1.16
	It's painful to think about being away from this person.	.62	3.03/1.25
	I would wait for this person to be with me.	.50	3.39/1.20
	Being away from this person is unbearable.	.59	2.58/1.18
	Losing this person would make me lose interest in many things.	.62	2.99/1.19
	I cannot imagine ever leaving this person.	.65	3.36/1.09
	I wish nothing could hold me back from this person.	.61	3.79/1.12
	Kissing this person can bring me comfort.	.61	4.16/0.97
	This person gives me feelings of security.	.72	3.66/1.16
Feeling of physical ease and well-being from a romantic partner	This person is able to comfort me. (Elation = .72, Protection = .71)	.72	3.64/1.20
	Being with this person makes me forget my troubles. (Sharing = .66)	.69	3.25/1.16
	Thoughts of this person bring me comfort.	.76	3.65/1.17
	I am overwhelmed with warmth and comfort around this person.	.67	3.35/1.13
	I find comfort in this person's arms.	.85	3.20/1.43
	Thinking about my future with this person makes me feel warm.	.71	3.75/1.14
	I feel content around this person.	.85	3.57/1.07
	I can take comfort from this person's company.	.73	3.84/1.15

Dimension	Items in the dimension	r^a	M/SD
Commitment ($\alpha = 0.84$)	This person can depend on me. (Sharing = .56)	.57	4.21/0.94
	I am determined to make this person happy.	.69	3.74/0.99
Being pledged and dedicated to a romantic partner	I would stay with this person through hard times.	.75	4.09/0.84
	I am willing to do what this person asks me to.	.69	3.46/1.15
	I want to spend my life with this person even if that life is hard. (Communion = .82)	.82	3.48/1.24
	I keep my promises to this person. (Service = .73)	.76	3.49/1.28
	If this person died I would remain committed to him/her.	.70	2.53/1.19
	My love for this person can only get stronger.	.62	3.88/0.92
Communion ($\alpha = 0.87$)	I find it hard to say goodbye to this person.	.52	3.68/1.02
	My relationship is incorporated into my identity.	.55	3.33/1.11
	Sharing of thoughts, feelings, possessions, and actions with a romantic partner to unite with him/her		
	I cannot wait to spend time with this person.	.72	3.41/0.98
	Even though I fight with this person, I know that we will stay together.	.72	3.47/1.17
	I am happy to become a parent with this person.	.67	3.66/1.28
	I want to spend my life with this person even if that life is hard.	.82	3.47/1.24
	I would marry this person as soon as I could.	.73	3.36/1.24
	I cannot comprehend this person leaving me.	.73	3.30/1.06
Companionship ($\alpha = 0.86$)	It makes me happier to just be in a room with this person.	.81	3.64/1.11
	It is comforting to think of always being with this person.	.80	3.56/1.19
	A friendly association and shared interest with romantic partner		
	I enjoy this person's company.	.82	3.60/1.31
	I try to stay close with this person.	.87	3.56/1.07
	I love accompanying this person anywhere.	.75	3.75/1.09
Compatibility ($\alpha = 0.82$)	I am content with the expectations this person has for me.	.70	3.13/1.33
	I feel I fit to this person perfectly.	.75	3.41/1.13
	Ability to exist with a romantic partner peacefully		
	Being with this person feels right to me.	.69	4.05/1.01
	This person is best suited for me. (Uniqueness = .64)	.64	3.91/1.06
	I believe that this person is my match. (Acceptance = .86)	.86	2.95/1.40
Concern ($\alpha = 0.73$)	I worry about the physical well-being of this person.	.68	3.53/1.18
	I am concerned about this person's safety.	.73	3.19/1.34
	Interest in protecting the health and welfare of someone		
	I become furious when someone hurts this person.	.73	3.42/1.31
	I become worried about this person when this person is away from me.	.47	3.28/1.14
	I am concerned when this person cries. (Intimacy = .72)	.73	3.61/1.28
	My concern for this person causes me to forget about myself.	.42	2.91/1.10
Devotion ($\alpha = 0.81$)	I am willing to die to save this person's life.	.79	3.44/1.05
	I would go to great lengths to please this person.	.74	3.48/1.25
	Profound dedication to a romantic partner		
	I would be happy to give this person everything.	.76	3.37/1.25
	I would sacrifice my happiness for the well-being of this person.	.68	3.11/1.22
	I would change my habits to make this person happier.	.60	3.31/1.08
Elation ($\alpha = 0.83$)	I have some very memorable kisses with this person.	.69	3.82/1.18
	My favorite memories are from experiences with this person.	.58	3.58/1.10
	A feeling of great pleasure associated with a romantic partner		
	This person makes me laugh.	.76	3.74/1.17
	I need to express my joy from being in love with this person.	.65	3.31/1.18
	Physical contact with this person brings me joy.	.80	3.49/1.32
	I enjoy this person's kisses. (Empathy = .849)	.86	3.16/1.47
	When I am with this person my life is more enjoyable. (Comfort = .621)	.62	4.00/0.99

Dimension	Items in the dimension	<i>r</i> ^a	<i>M/SD</i>
Empathy ($\alpha = 0.88$) The desire to understand and share the feelings of a romantic partner	I feel guilty when I cause this person any pain.	.76	3.44/1.31
	If this person died I would feel as though I had died as well.	.65	3.33/0.99
	I care about this person's pains and sufferings. (Gratitude = .735, Understanding = .727)	.73	3.86/1.20
	I feel this person's pain as if it was mine.	.55	3.60/1.09
	I want to know how this person is feeling.	.81	3.44/1.37
	I am compassionate towards this person.	.80	3.62/1.28
	When this person is hurt I become very emotional.	.65	3.19/1.28
Faith ($\alpha = 0.87$) The ability to predict and confidently depend on a romantic partner	Seeing this person suffer causes me pain.	.73	3.61/1.22
	I want this person to be as happy as I am.	.78	3.75/1.20
	This person can cure the doubts I have about our relationship.	.82	2.91/1.35
	I would be surprised if this person left me.	.69	3.34/1.30
	I know that this person cares about me. (Service = .86, Empathy = .86, Interest = .85)	.86	3.22/1.47
	I can be myself around this person.	.83	3.63/1.07
	I know what this person's actions mean.	.80	3.44/0.91
Forgiveness ($\alpha = 0.75$) To accept a romantic partner unconditionally of their mistakes	I believe this person will always be committed to me.	.77	3.26/1.33
	I know what to expect from this person by looking at this person's face.	.74	3.34/1.25
	I do not hold grudges towards this person.	.57	3.77/1.09
	Even if I argue with this person I still want to be around this person. (Longing = .72, Affection = .72)	.72	3.43/1.26
	I can forget the past in order to get along with this person.	.64	3.26/1.10
	I cannot get mad at this person for long periods of time.	.75	3.44/1.18
	I can forgive any wrongs done by this person.	.67	3.15/1.19
Gratitude ($\alpha = 0.85$) Being thankful and showing appreciation to a romantic partner	Forgiveness is important in my relationship with this person.	.69	3.80/1.09
	I am grateful for the time I have with this person. (Acceptance = .86, Interest = .86)	.87	3.64/1.07
	I am grateful for everything this person and I have had together, regardless of the outcome of our relationship. (Interest .76)	.77	3.49/1.36
	The things that I share with this person would be difficult to lose.	.76	3.84/1.08
	I cherish my memories with this person.	.68	4.18/0.97
	I am happy to be with this person in the present without worrying about the past or future.	.55	3.81/0.92
	The more I am with this person the more valuable our relationship is to me.	.72	3.73/1.13
Idealization ($\alpha = 0.71$) Positive perceptual alterations of the image of a romantic partner leading to blindness and amplification	I value everything this person does for me.	.77	3.66/1.23
	This person is superior to all others of this person's gender.	.63	3.28/1.17
	I can easily find the positive aspects in this person. (Acceptance = .66, Empathy = .64, Interest .65, Protection = .65)	.64	3.69/1.17
	Crazy ideas seem plausible when I am with this person.	.53	3.00/0.98
	I think this person is beautiful regardless of what others think. (Comfort = .68)	.68	3.72/1.23
	I believe everyone will love this person.	.55	3.10/1.25
	I always believe this person.	.64	3.44/1.23
Interest ($\alpha = 0.87$) General liking and curiosity about a romantic partner	It is hard to believe that I am fortunate enough to be with this person.	.56	3.00/1.18
	I find this person attractive because of their manner.	.89	3.06/1.38
	This person's physical appearance is pleasing to me.	.82	3.56/1.26
	I am curious to know what this person's life is like.	.75	3.58/1.19
	I want to listen to this person.	.75	4.04/0.86
	I love learning new things about this person.	.88	3.60/1.09

Dimension	Items in the dimension	r^a	M/SD	
Interpersonal Mattering ($\alpha = 0.90$)	This person makes me feel privileged.	.77	3.28/1.36	
	If I fail, I believe this person would give me strength.	.87	2.97/1.34	
	Sense of self-worth as significant to a significant other	I feel that this person has given me a more meaningful life.	.75	3.40/1.27
		This person gives me strength through hard times.	.72	3.77/1.07
		This person's acceptance of me makes my life more valuable.	.75	3.30/1.32
		This person makes me feel like I am the only one that matters.	.58	3.31/1.19
		When this person acts interested in me, I am happier.	.73	3.45/1.26
		I am very proud of this person.	.79	3.58/1.20
My love for this person makes me a better person.	.78	3.46/1.24		
Intimacy ($\alpha = 0.85$)	I accept being vulnerable to this person.	.73	3.26/1.27	
	I allow this person to know the entire truth about me.	.80	2.94/1.34	
	Deep, close feelings towards a romantic partner	This person and I have private information from other people. (Understanding = .43)	.44	4.02/1.02
		This person and I share our personal fears with each other.	.74	3.52/1.15
		I include this person in my personal matters.	.71	3.88/1.04
		I am able to express my feelings to this person at anytime.	.77	3.39/1.13
		I feel I can easily tell this person personal information.	.78	3.47/1.32
I believe only this person knows me on a deeper level than others do.	.64	3.26/1.23		
Irrationality ($\alpha = 0.74$)	Common sense evades me when this person is around.	.74	3.04/1.40	
	This person makes me think silly.	.46	3.36/1.08	
	Thinking and acting intuitively, without logic and rationality, due to preoccupation with a romantic partner	My feelings for this person lead me to make silly decisions.	.50	2.16/0.97
		I cannot focus on anything else if I think of this person.	.74	2.79/1.22
		When I am apart from this person I cannot function rationally.	.72	2.56/1.36
I would pursue a relationship with this person even if it was bound to fail.		.45	3.23/1.17	
Reality is clouded when I am with this person.	.71	2.44/1.12		
Longing ($\alpha = 0.90$)	I want to feel close with this person despite distance.	.77	3.48/1.25	
	I want to be closely connected with this person.	.75	3.65/1.17	
	Eager desire to be closer to a romantic partner	I want this person to return to me if this person is away from me.	.75	3.42/1.22
		I want to be with this person when I die.	.70	3.52/1.21
		I will go anywhere with this person just to be together.	.70	3.21/1.27
		I want all the time I can have with this person.	.77	3.31/1.31
		I miss this person when we are apart.	.60	3.92/0.86
		I am eager to converse with this person in any circumstances. (Comfort .65)	.66	3.58/1.19
I want a future with this person. (Sharing = .79)	.80	3.57/1.24		
Obsession ($\alpha = 0.74$)	I am obsessed with this person.	.72	2.66/1.27	
	It seems I cannot stop fantasizing about this person.	.66	3.14/1.22	
	Intense attraction towards a romantic partner that continually preoccupies and dominate one's mind	My emotions toward this person overwhelm me.	.65	2.81/0.94
I feel as though I cannot take my eyes off this person.		.77	3.09/1.26	
	This person is all I think about.	.71	2.61/1.25	

Dimension	Items in the dimension	<i>r</i> ^a	<i>M/SD</i>	
Possession ($\alpha = 0.65$)	I feel like this person is mine.	.51	3.42/1.20	
	When this person is with someone else I feel like jealousy consumes me.	.53	2.39/1.16	
	Desire to own a romantic partner or have him/her belong to one	I cannot stand other people touching this person. (Irrationality = .60, Obsession = .55)	.56	3.05/1.24
		I do not want to think about other people loving this person.	.65	3.32/1.20
		I would feel that I would die if this person was leaving me for someone else.	.66	3.06/1.24
	I hate anything that might take this person away from me.	.60	2.45/1.13	
Protection ($\alpha = 0.87$)	I would not hesitate to care for this person.	.83	3.73/1.14	
	I would never hurt this person.	.67	3.60/1.18	
	Doing something to preserve a romantic partner's state of well-being	When this person is upset I want to comfort him/her. (Interest = .85, Empathy = .85)	.85	3.68/1.06
		I stand up for this person to my friends.	.73	3.37/1.35
		I could never wish this person harm.	.69	4.21/0.98
I would care for this person if this person was incapable of self-care.		.82	3.55/1.18	
	I do not want to make trouble for this person.	.74	3.76/1.18	
Reciprocity ($\alpha = 0.89$)	I believe the relationship's costs are equal between us both.	.50	3.85/1.08	
	I think my relationship with this person is mutually beneficial.	.76	3.72/1.10	
	Giving and receiving things with someone for mutual benefits and pleasures	I feel that there is a mutual trust in my relationship with this person.	.79	3.49/1.18
		I think rewards are equal for me and for this person in my relationship.	.79	3.41/1.19
		I view this person as my equal.	.68	4.01/0.96
		I believe this person loves me as much as I love this person.	.70	3.94/0.93
		I want to make this person just as happy as they make me.	.79	3.46/1.34
		Affectionate gestures are natural between me and this person.	.76	3.46/1.31
	I believe this person feels the same affection towards me as I feel towards this person.	.78	3.63/1.19	
Reliance ($\alpha = 0.64$)	I can rely on this person to protect me.	.72	3.56/1.14	
	I feel that I depend on this person for comfort.	.63	3.28/1.17	
	The feeling of needing a romantic partner to satisfy a one's individual needs	I feel as though this person is all I need. (Uniqueness = .49, Crystallization = .48)	.49	2.72/1.19
		I feel the need for this person to understand me. (Empathy = .63, Service = .62)	.63	3.42/1.28
	I can always find happiness with this person.	.75	3.45/1.21	
Service ($\alpha = 0.87$)	I want to give this person the best advice.	.72	3.92/1.14	
	I want to solve this person's problems.	.83	2.91/1.32	
	A responsibility required to be carried out for a romantic partner	I want to be there to support this person.	.81	3.66/1.24
		I feel that this person deserves the best from me.	.79	3.59/1.24
		I would help this person with their work.	.77	4.13/0.80
Giving this person what this person loves is important to me.		.73	3.61/1.19	
	I try to predict what this person would want.	.68	3.54/1.09	
Sharing ($\alpha = 0.87$)	I want to have new experiences with this person. (Gratitude = .75)	.76	4.16/0.81	
	I enjoy planning for the future with this person.	.74	3.48/1.34	
	Having something in common between oneself and a romantic partner	I enjoy all of the things I do with this person.	.58	3.67/1.12
		The time I get to spend talking to this person is the best part of my day. (Comfort = .68)	.69	3.61/1.16
		I want to be with this person through good times.	.76	3.65/1.21
		I love being in a relationship with this person more than being single.	.79	3.77/1.25
		I enjoy making puns and jokes with this person.	.72	3.89/1.09
	Having children with this person would bring more meaning to my relationship with this person.	.70	2.77/1.31	
Trust ($\alpha = 0.77$)	I do not mind being vulnerable to this person. (Intimacy = .74)	.74	3.43/1.05	
	I believe this person regardless of anything.	.60	3.21/1.14	
	Ability to confide in a romantic partner	I have complete trust in this person.	.78	3.63/1.20
		I can ask this person for help at any moment. (Comfort = .53)	.53	3.99/1.02
		In times of uncertainty I can trust this person.	.75	3.73/1.19
I trust this person enough to express my feelings.		.76	3.55/1.28	

Dimension	Items in the dimension	r^a	M/SD
Understanding ($\alpha = 0.86$) Sympathetically comprehension of a romantic partner	I know what is on this person's mind.	.57	3.34/1.03
	I want to know what is happening in this person's life.	.66	4.10/0.81
	I can recognize when this person is distressed.	.78	3.64/1.21
	I can recognize this person by this person's voice.	.76	3.86/1.19
	I think about how this person feels.	.77	3.76/1.16
	I am able to understand what this person is thinking.	.68	3.52/1.11
	I understand things about this person without this person having to tell me.	.75	3.35/1.25
Uniqueness ($\alpha = 0.67$) Perception of a romantic partner as being particularly remarkable from others	I understand what this person's actions mean.	.71	3.50/1.08
	I do not need anyone else other than this person to meet my needs.	.60	2.86/1.26
	Every moment I experience with this person is perfect.	.65	2.31/1.00
	I do not find anyone else as attractive as this person.	.65	3.19/1.28
	I believe this person is the only one for me.	.73	3.32/1.22
Yearning ($\alpha = 0.82$) A feeling of intense desire to be physically closer to a romantic partner	My relationship with this person is more important than my relationship with other people.	.63	3.44/1.15
	I have never seen anyone as beautiful as this person.	.60	3.17/1.31
	I want this person sexually.	.73	3.98/0.92
	I would face danger to be with this person. (Devotion = .55)	.56	3.88/0.88
	I am in love with this person's body.	.63	3.80/0.91
	I crave kisses from this person.	.67	3.85/0.93
	Knowing that this person is near causes me to fantasize about this person.	.46	3.19/1.21
	It is difficult to resist physical contact with this person.	.65	3.79/0.94
	When I kiss this person my heart beats harder.	.72	3.49/1.10

^aThis column presents correlations between item and total score for dimension.

Data Analysis

The purpose of this study was to analyze the dimensional structure of the MLS, to identify the diversity of dimensions comprising love, and to explore how these dimensions fit into the concepts of Passionate and Companionate love. We were interested in the identification of factor structure of these dimensions. We believed, however, that factor structure might be different for different categories of participants. Therefore, the cluster analysis of participants preceded factor analysis.

In this article, we provide further psychometric analysis of the MLS and present the full scale. Traditional psychometric methods did not fit to the analysis of multidimensional scale that we developed. Principle Component Analysis is not capable to identify thirty-three dimensions that we hypothesized. Therefore, we used a variation of traditional methods. We analyzed the psychometrics of each item of the MLS using Cronbach Alpha (α) for reliability and correlation of each item to the composite score for the corresponding sub-scale as evidence of the validity for the item.

In order to reveal the typology of love as typical combinations of love dimensions, we used Two-Step Cluster analysis and identified two clusters of participants; those who scored high in love and low in love. Yet, we were interested in typology as typical combinations of love dimensions. To focus more on typology, we centered the scores to eliminate the influence of high and low ratings. We used Two-Step Cluster analysis with centered data and revealed two clusters of love that we called Passionate and Companionate Love. We ranked the dimensions from highest to lowest within each cluster and computed Spearman correlation between the ranks to identify whether Passionate and Companionate Love are distinctively different types of love. Creating a typology of love,

we were less interested in the degree of love feelings rated by participants, but rather in combinations of dimensions formed. We believed that the structure of love depends on the type of love identified its multidimensional structure. We applied Principle Component Analysis separately to cases of Passionate Lovers and Companionate Lovers to identify the multidimensional structure as well as to verify that these types of love were qualitatively different from each other.

Further, we explored participants' characteristics that contributed to their cluster assignment to either Passionate or Companionate Love. Linear Regression Analysis was used in this case to reveal typical characteristics of Passionate and Companionate Lovers.

Results

Two Types of Love

Two-Step Cluster Analysis (Schwarz's Bayesian Criterion) with centered data was able to reveal two distinct clusters of good quality (~ 0.4 Silhouette measure of cohesion and separation): cluster one - 259 participants (216 male, mean age 26) and cluster two - 154 participants (124 female, mean age 30). The cluster solutions with 3, 4, and 5 cluster memberships were of poor quality.

Cluster one is characterized predominantly by passionate dimensions including *Yearning*, *Admiration*, *Gratitude*, and *Reciprocity*, whereas cluster two is characterized predominantly by companionate dimensions including *Companionship*, *Service*, *Protection*, and *Interest*. Although there is certain overlapping of dimensions salient for both clusters, the first cluster describes predominantly passionate love feelings while cluster two describes companionate love feelings. This means that these two types of love are distinctive from each other, but still with much in common. Based on the dimensions that characterized each cluster, we called Cluster 1 as *Passionate Love*, and Cluster 2 as *Companionate Love*.

To verify how different the representation of the dimensions in each cluster was, we ranked the dimensions from highest to lowest within each cluster and computed Spearman correlation between the ranks. There was almost no correlation ($r = -0.011$) which suggests that Passionate and Companionate Love are significantly different types of love.

We then performed Principle Component Analysis (PCA) on each cluster of participants and revealed two factor structures presented in *Passionate Love* (Table 2), and *Companionate Love* (Table 3). These factor structures brought different configurations of dimensions within factors and different qualitative descriptors of each type of love. Passionate love is composed of 12 factors while Companionate love is composed of 10 (Figures 1 and 2). Factors within Passionate love also display several inverse relationships among dimensions, while Companionate love appears generally harmonious. The rankings of participants scores of these dimensions, along with the factor analysis composed of each cluster provided the information needed to interpret each cluster. The interpretation of these relationships will be discussed further.

Table 2

Cluster 1 Factor Analysis

Dimension	Attraction	Partnership	Mutuality	Suitability	Fascination	Closeness	Unity	Relationship Maintenance	Responsibility	Satisfaction	Passion	Elation
Longing	.760	.009	-.003	-.140	-.153	.061	-.199	-.093	-.071	-.039	.077	-.082
Irrationality	-.735	.164	.008	.050	.015	.077	-.080	-.004	-.028	.000	.288	-.122
Obsession	-.686	.126	-.074	-.033	-.326	.051	-.140	-.023	.004	-.167	.088	-.184
Interpersonal Mattering	.650	-.019	-.122	.062	.102	.146	-.232	.073	-.015	-.237	.154	-.355
Sharing	.048	.688	.015	.006	.039	.018	.104	-.061	.137	.415	-.159	-.075
Companion	.161	-.678	-.019	.134	.008	-.048	.010	-.191	.154	-.128	-.159	-.040
Interest	.218	-.600	-.201	-.160	.155	.251	-.133	.155	.042	.187	-.127	-.071
Comfort	-.016	.562	-.067	.315	-.018	-.030	.117	-.165	.118	-.212	-.320	.241
Reciprocity	-.040	.094	.780	-.024	.079	-.013	.032	-.152	-.084	.141	.085	-.058
Concern	-.152	.040	-.740	-.132	.146	.112	-.151	-.155	-.128	.190	-.086	-.038
Trust	-.274	.051	.556	.162	.049	.011	-.069	-.033	-.149	-.037	-.329	-.098
Uniqueness	-.084	.059	.031	.770	-.046	.004	.060	.005	-.061	.065	-.164	-.081
Compatibility	.043	-.070	.209	.721	.045	-.049	-.216	-.090	-.106	.108	.214	.071
Admiration	-.327	.153	.090	.058	.753	.071	.039	-.034	-.012	.002	.036	.094
Idealization	-.206	.171	-.029	.138	-.724	.034	.138	.029	-.007	-.074	.022	.008
Devotion	.364	-.080	-.229	.104	.528	.048	.104	.057	.026	-.249	.039	-.270
Reliance	-.092	-.092	.206	-.105	-.452	-.004	-.301	-.375	-.043	.084	-.215	.349
Forgiveness	.071	.191	-.095	-.089	.103	-.772	-.114	.062	-.154	-.136	.100	-.043
Intimacy	.226	-.007	-.222	-.087	.106	.661	-.130	.088	-.176	-.122	-.106	-.080
Acceptance	.208	-.335	.031	.117	-.112	-.601	-.027	-.095	.133	-.195	-.308	.005
Commitment	-.001	.139	.005	-.223	.125	-.102	.768	-.082	.061	-.034	.013	-.019
Communion	-.127	.043	.144	.146	-.130	.117	.757	-.001	-.058	.064	-.127	-.103
Understanding	-.193	.023	.038	-.088	-.044	-.206	.010	.773	-.097	.150	.044	.175
Empathy	.216	-.053	-.036	-.122	-.024	.309	-.130	.694	-.009	-.136	-.023	.005
Attachment Anxiety	.125	.003	.128	-.319	-.164	-.110	.073	-.463	-.429	.006	.053	.092
Service	.110	-.074	.040	-.211	.007	.022	.056	-.022	.777	.008	.065	.052
Protection	-.194	.045	-.345	-.072	-.091	-.250	-.030	-.152	.561	.245	.005	.119
Possession	.291	-.148	-.115	-.207	-.101	.023	.368	-.135	-.443	.102	.277	.163
Gratitude	.026	.053	-.042	.086	-.009	.141	.019	.076	.120	.781	.054	-.088
Affect	.140	-.183	-.028	-.388	.008	.125	-.007	.160	.207	-.497	.205	.046
Yearning	-.104	.006	.054	-.034	.063	-.064	-.089	.024	.005	-.053	.797	-.088
Faith	.101	-.096	.150	-.314	.211	-.014	-.236	.177	-.282	-.031	-.369	-.320
Elation	.042	.085	-.101	-.024	.011	-.008	-.109	.142	.045	-.146	-.053	.817

Note. Boldface indicates highest factor loadings.

Table 3
Cluster 2 Factor Analysis

Dimension	Care	Equality	Relationship Investment	Unity	Harmony	Fondness	Attachment	Amplification	Autonomy	Sharing
Empathy	.709	-.056	.270	.013	-.090	.061	.043	.106	-.084	-.311
Service	.702	-.036	.021	.138	-.092	.063	-.288	.211	-.057	.080
Concern	.658	-.323	-.070	-.050	-.081	-.178	-.117	.126	.157	-.149
Uniqueness	-.636	-.231	-.097	.252	-.122	-.264	-.224	-.093	-.208	-.019
Compatibility	-.713	.267	.188	.205	-.062	-.159	.028	-.041	.102	-.142
Reciprocity	-.167	.747	.068	-.003	.044	.178	-.146	.038	.101	-.138
Interpersonal Mattering	.076	.702	.035	-.047	-.269	-.185	.098	-.266	-.171	.160
Possession	.224	-.598	-.270	-.067	-.134	-.011	.237	.146	-.246	-.005
Trust	-.117	.592	-.160	-.007	.005	.291	-.295	.087	.068	-.379
Comfort	-.001	.525	.036	-.198	.301	.021	.294	.064	-.008	.253
Acceptance	-.096	.247	.716	.058	.032	.015	-.164	-.074	.349	-.092
Interest	.109	.011	.632	-.168	.177	.183	-.314	-.210	-.046	-.103
Companion	-.169	.056	.621	-.233	.205	-.153	.326	.117	-.065	.152
Gratitude	.309	.047	.558	-.101	.116	.158	-.116	.190	-.075	.260
Protection	.197	.022	.526	-.035	-.403	-.098	-.185	.321	.195	.021
Devotion	.215	-.058	-.203	.775	-.114	-.152	-.145	.033	-.030	-.036
Commitment	-.210	-.103	-.054	.709	-.207	-.063	.189	.008	.015	.249
Communion	-.392	.025	-.250	.671	-.076	-.016	.284	.025	.032	.152
Obsession	-.003	-.491	-.355	-.531	.026	-.140	.001	-.219	.030	-.025
Irrationality	.224	-.469	-.322	-.487	-.057	-.290	-.273	.005	-.033	-.007
Elation	.073	.078	.101	-.107	.762	.008	.028	.005	-.156	.088
Affection	-.193	.011	.188	.038	.741	-.073	.040	.196	.113	-.073
Yearning	.029	-.034	-.064	-.289	.734	-.120	-.064	-.214	.090	-.006
Intimacy	.043	.078	.071	.021	.045	.771	-.024	.082	-.007	-.232
Understanding	.398	-.027	.160	-.099	-.160	.707	-.172	.035	.089	.191
Faith	-.035	.297	-.192	-.131	-.271	.637	-.232	.244	.071	.164
Longing	-.098	-.028	-.082	.163	.143	-.047	.758	-.049	-.143	.241
Anxiety	-.079	-.186	-.283	.068	-.160	-.272	.670	.003	-.008	-.141
Admiration	-.224	.145	.063	-.117	.121	-.145	.136	-.662	.029	-.039
Idealization	-.313	-.045	-.181	.008	-.198	-.124	-.176	-.649	-.064	-.138
Reliance	-.196	.062	-.192	-.037	-.254	-.133	.108	.265	-.730	-.029
Forgiveness	-.120	.153	-.024	-.042	-.239	-.015	-.034	.276	.688	.035
Sharing	-.088	-.012	.054	.220	.008	-.030	.094	.131	.048	.794

Note. Boldface indicates highest factor loadings.

Differences Between the Two Types of Lovers

A total of 259 participants were assigned in Passionate Love Cluster: the mean age was 26 years, 216 of those were males. In Passionate Love, 12 participants reported as being in casual dating, 70 in committed dating, 161 were engaged, 12 were married, and 4 identified as being in a other type of relationship not listed. For reported relationship duration in Passionate Love, 2 participants reported being in relationships one month or less, 7 in relationships one to three months, 11 in relationships three to six months, 53 in relationships six months to one

year, 119 in relationships one to two years, 61 in relationships more than two years, 4 more than five years, and 2 more than ten years.

A total of 154 participants were assigned in Companionate Love Cluster: the mean age was 30 years, 124 of those were females. In Companionate Love, 7 participants reported as being in casual dating, 76 in committed dating, 7 were engaged, 61 were married, and 3 identified as being in a other type of relationship not listed. For reported relationship duration in Companionate Love, 3 participants reported being in relationships one month or less, 7 in relationships one to three months, 3 in relationships three to six months, 18 in relationships six months to one year, 26 in relationships one to two years, 43 in relationships more than two years, 23 more than five years, and 31 more than ten years. Companionate Lovers reported being higher in love with their partner ($M = 3.62$), than Passionate Lovers ($M = 3.12$).

To identify the contributing factors that distinguish Passionate and Companionate Lovers, we ran linear regression analysis. The overall regression including eight predictors was statistically significant, $R = .75$, $R^2 = .56$, Adjusted $R^2 = .55$, $F(6, 323) = 86.68$, $p < .01$. Passionate or Companionate cluster membership could be predicted quite well from this set of eight variables with approximately 56% variance in cluster membership accounted for by the regression. To assess the contribution of individual predictors, the t ratio for the individual regression slopes were examined. Six of the eight predictors were significantly predictive of cluster memberships; these include age, $t(323) = 2.96$, $p < .01$, gender, $t(323) = -10.97$, $p < .01$, how religious, $t(323) = 8.74$, $p < .01$, relationship type, $t(323) = -1.79$, $p < .01$, relationship duration, $t(323) = 2.53$, $p < .01$, and how much in love, $t(323) = 4.03$, $p < .01$. The predictive equation for cluster membership was as follows:

$$\text{Cluster Membership} = .11 \times \text{age} - .41 \times \text{gender} + .33 \times \text{religiosity} - .07 \times \text{relationship type} + .11 \times \text{relationship duration} + .15 \times \text{in love}.$$

This means that older people and those in longer relationships tend to be more companionate in their love. Those who identified as being more religious tend to fit more with Companionate love than Passionate love. Companionate love also is more typical for women than for men.

The participants' rating of dimensions in Companionate love cluster is distributed more evenly, and is on average higher than in the Passionate love cluster. This means that Companionate love is more harmonic than Passionate love and better balanced between dimensions. Despite a popular belief that Passionate love is more intensive, it is intensive only in some dimensions. In particular, *Yearning*, *Admiration*, *Reciprocity*, and *Gratitude* rank much higher than many other dimensions and very well explain the key characteristics of Passionate love. In support of these observations, [Figures 1 and 2](#) show the same type of profiles for Passionate and Companionate love based on the composite scores for 12 factors in Cluster 1, and 10 factors in Cluster 2. The most salient factors in Passionate love are *Passion*, *Unity*, and *Reciprocity*, and in Companionate love *Relationship Investment*, *Intimacy*, and *Fondness*. And still the dimensions within factors in Passionate and Companionate love are grouped differently around factors, resulting in different names for factors within each cluster not totally comparable to each other. This means that Passionate and Companionate love hold different qualitative characteristics from one another.

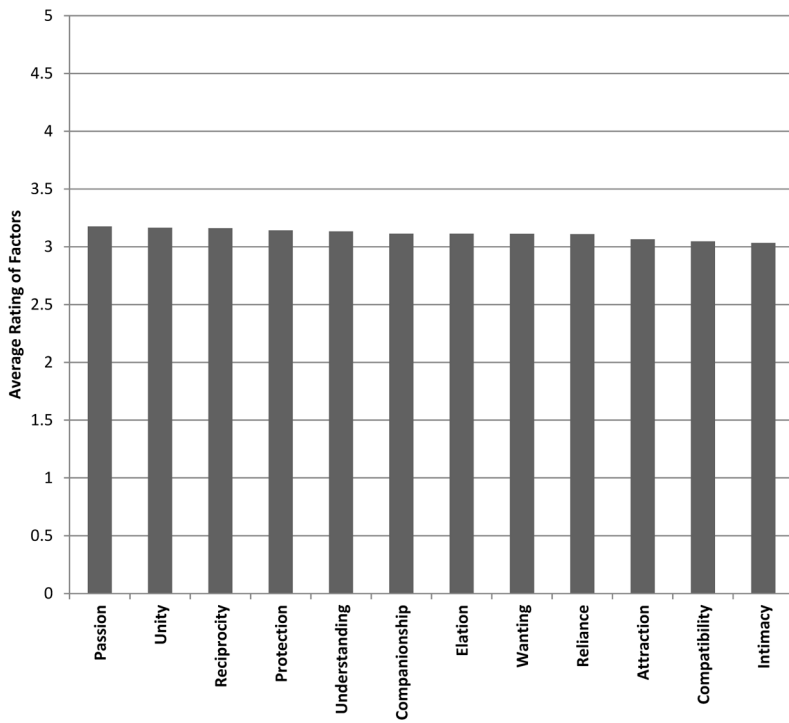


Figure 1. Factors within Passionate Love.

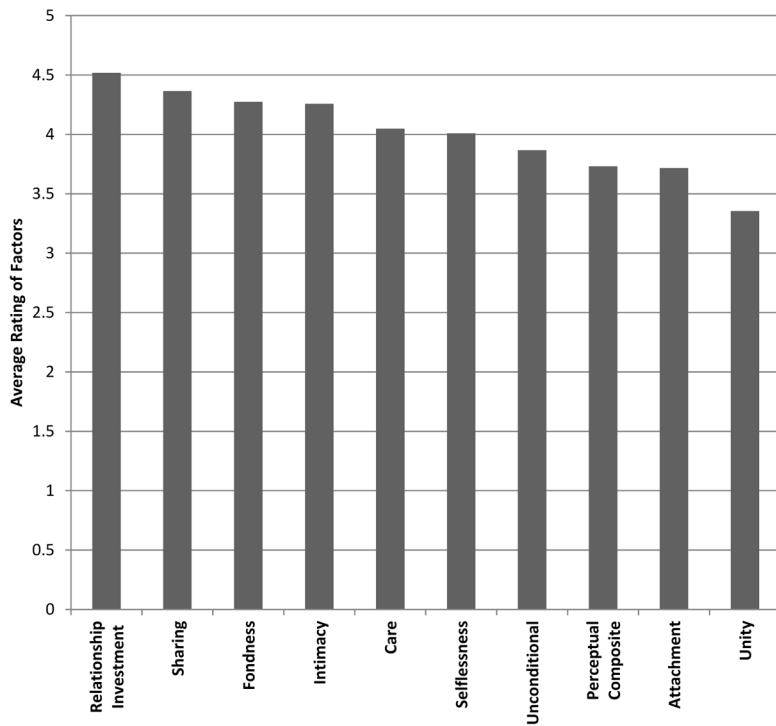


Figure 2. Factors within Companionate Love.

Discussion

As the Spearman correlation showed, there was little correlation between Passionate and Companionate Love, concluding that both types of love are independent of each other, despite sharing the same dimensions. While both types of love are comprised of the same dimensions, the relationship between the dimensions and their salience shapes the multidimensional structure within both Passionate and Companionate Love, making each one unique from the other. The PCA revealed that these dimensions formed 12 factors within Passionate Love and 10 factors in Companionate love.

Passionate Love

The factor structure revealed by the PCA for Passionate love (Table 2) included Attraction, Partnership, Mutuality, Suitability, Fascination, Closeness, Unity, Relationship Maintenance, Responsibility, Satisfaction, Passion, and Elation. Based on the definitions and results, these factors appear to fit with Hatfield and Rapson's (1993) work on Passionate love.

The factor of Attraction shows two opposite aspects, one being irrational and the other rational. *Longing* and *Interpersonal Mattering* depict desires to be closer to a partner and gaining a feeling of self-worth. This aspect fits well to the definition of passionate love as a desire for union (Hatfield & Rapson, 1993). On the other hand, *Irrationality* and *Obsession* show that passionate attraction can be intuitive, illogical, and have a strong influence over a person's mind. These two aspects share an inverse relationship with each other, meaning that when one is experienced, the other must not be. While mean scores for *Irrationality* and *Obsession* are higher than for *Longing* and *Interpersonal Mattering* for Passionate Love, factor analysis showed that *Irrationality* and *Obsession* negatively loaded, making it unclear which aspect is preferred by Passionate Lovers. This means, that Lovers who are high in *Longing* and *Interpersonal Mattering*, are not irrational or obsessive. In other words, lovers with high feelings of *Irrationality* and *Obsession* cannot experience intensive *Longing* and *Interpersonal Mattering*.

The factor of Partnership depicts two aspects, an emphasis on romantic and less accent on friendship companionships. In romantic companionship *Sharing* and *Comfort* depict feelings of ease associated with an intimate relationship. Passionate Love focuses less on the friendship aspect of companionship, depicted by *Interest* and *Companionship* (in terms of camaraderie), a general liking of someone that is similar and is associated with this person. Due to the inverse relationship of friendship and romantic companionship, Passionate Lovers cannot combine these two different aspects of Companionship. Romantic companionship overrides friendship feelings in Passionate Lovers.

In the factor of Mutuality, *Reciprocity* and *Trust* depict mutually beneficial aspects of a relationship as the ability to confide in a partner and expect equality in a relationship. Passionate Love takes less emphasis on the caretaking aspect, depicted by a lack of *Concern*, disinterest in protecting the well-being of their partner. The inverse relationship of mutually beneficial aspects with the caretaking can be interpreted that a Passionate Lover is more interested in their relationship than in their partner's interests.

The factor of Suitability is comprised of two dimensions, *Compatibility* and *Uniqueness*, the ability to fit appropriately with someone that is perceived as special, unique, and better than others. This means that a Passionate Lover's perception of a partner determines a person's feelings of compatibility. Consequently, feelings of compat-

ibility consist of attraction based on physical or personality-type characteristics of a potential partner. In theory, this could lead to irrational, imaginative perceptions of someone being an exclusively compatible partner.

The factor of Fascination depicts two different aspects, partner-focused and a lack of emphasis on partner-dependent. *Admiration* and *Devotion* are partner-focused dimensions and depict a dedicated and respectful attitude towards a partner. Passionate Lovers places less emphasis on the partner-dependent aspect, depicted by a lack of *Idealization* and *Reliance*, less feelings of needing a partner and noticing imperfections. Due to the higher values of admiration and devotion compared to idealization and reliance, we interpret that Passionate Lovers may have a preference to partner-focused feelings, and prefer not to admit their reliance on their partner.

The factor of Closeness depicts aspects with an emphasis on feeling-focused and less accent on action-focused. *Intimacy* is the dimension comprising feeling-focused, depicted as close feelings towards a partner. Passionate Lovers carry less emphasis on the action-focused aspect, depicted by a lack of *Forgiveness* and *Acceptance*, intolerance towards someone in a relationship with sensitivity to their mistakes and lack of willingness to forgive. In Passionate Love, vulnerability accompanies *Intimacy* and allows a partner to hurt a Passionate Lover. Passionate Lovers are not always as likely to accept and unconditionally forgive a partner if they are intimate, because of this vulnerability. Additionally, as relationships develop, partners must be able to forgive each other in order to grow more intimate. There was no clear preference on either action-focused or feeling-focused aspects for Passionate Love.

Communion and *Commitment* comprise the factor of Unity, depicted as willingness to share thoughts, feelings, possessions, and actions, and pledge to their partner. This implies that Passionate Lovers find themselves synchronized with their partner, and choose to dedicate themselves in attempts to unite with each other.

The factor of Relationship Maintenance depicts two different aspects, emphasis on relationship growth and less accent on relationship preservation. Relationship growth, the more preferred by Passionate Lovers, consists of *Understanding* and *Empathy*, depicted as a sympathetic comprehension and the desire to share the feelings with a partner. Less emphasis on *Attachment Anxiety* represents less concern about relationship preservation, less feelings of nervousness and apprehension about abandonment by a partner. Comprehending and understanding of a partner and sharing feelings with him/her is difficult to achieve when feelings of abandonment is present. This may cause relationship growth to stagnate.

The factor of Responsibility depicts two aspects, cherishing and a lack of possessiveness. The first, and more valued, is the aspect of cherishing, which is comprised of *Protection* and *Service*, depicted by responsibility to a partner and preserving their well-being. Passionate Lovers do not generally have feelings of *Possession*, a desire to own a partner. Passionate Lovers seeks to preserve and serve their partner and do not attempt to be possessive or control him/her.

Satisfaction, a factor comprised of an inverse relationship between *Affection*, tender, joyful feelings of fondness toward a partner, and *Gratitude*, being thankful and showing appreciation. The inverse relationship between affection and gratitude comes from needs of the Passionate Lover: when the needs are present, affection is used, and when needs are met, they are grateful. When a Passionate Lover wants something from their partner (sex, attention, etc.) the affectionate behavior becomes an implicit method to fulfill these needs. *Gratitude* likely occurs after needs have been met.

The factor of Passion depicts two aspects, *Yearning*, feelings of intense desire to be physically closer to a partner, and less accent on *Faith*, the ability to predict and confidently depend on a partner. The inverse relationship between *Yearning* and *Faith* is likely due to Passionate Lovers feelings of *Yearning* making them blind to their *Faith* in a partner, and therefore putting less value on it.

The final factor, *Elation*, joyful feelings associated with a partner stands alone. *Elation* is not dependent on any specific factors, dimensions, or composites. This could mean that joyful feelings are salient, and not connected with other dimensions.

Companionate Love

Hatfield and Rapson (1993) identified *Intimacy* and *Commitment* as dimensions of Companionate love. In our study, Companionate love formed the following factors: Care, Equality, Relationship Investment, Unity, Harmony, Fondness, Attachment, Amplification, Autonomy, and Sharing. The same 33 dimensions that comprised Passionate Love structure also comprise Companionate Love, but as stated earlier, the dimensions group together in different structures, consequently forming a different type of love. These factors all appear to align with Hatfield and Rapson's (1993) findings and definitions of this type of love.

The factor of Care depicts two aspects, high value of service and less accent on suitability. *Concern*, *Empathy*, and *Service* comprise the aspect of service, depicted as an interest in protecting welfare of, understanding the feelings of, and responsibilities carried out for a partner. This aspect is more valued than suitability. Suitability, which is less important to Companionate Love, the participants showed less concern for *Compatibility* and *Uniqueness*, the ability to exist with a partner peacefully who is found particularly remarkable from others. As discussed in Passionate Love, *Compatibility* and *Uniqueness* (suitability) can show a tendency to a fantastical perception of their partner in relationships, perceiving their partner as remarkable and able to maintain a relationship with him/her. On the other hand, Companionate Lovers show less value of suitability and a higher tendency to value care aspects of their relationship, where they can serve their partner, watch for their well-being, and share in their feelings. The lack of accent on suitability may be due to Companionate Lover's matured state not needing suitability to establish a relationship with a partner, because the relationship likely has been maintained for a significant period of time.

The factor of Equality depicts the aspects of reciprocity and a lack of possessiveness. The reciprocal aspect is comprised of feelings of *Interpersonal Mattering*, *Comfort*, *Trust*, and *Reciprocity*, and described as self-worth as significant to a partner, sense of physical ease, the ability to confide in, and the giving and receiving with someone for mutual benefits. On the other hand, Companionate Lovers do not have feelings of *Possession*, which is a lack of desire to own a partner, representing inequality in a relationship. Similar to Passionate Lovers, the tendency exists for Companionate Lovers to seek *Reciprocity* and *Trust* for a relationship bearing mutual benefits. Additional differences are that to Companionate Lovers, this reciprocal aspect also includes *Comfort* and *Interpersonal Mattering*, involving the experience of feelings of ease and self-worth. Another major difference, whereas Passionate Lovers tend to value mutually beneficial relationships, Companionate Lovers value mutually beneficial relationships over possessiveness, which represents a selfless relationship.

The factor of Relationship Investment is comprised of *Interest*, *Acceptance*, *Companionship*, *Gratitude*, and *Protection*, and is described as the willingness to invest into the success of a romantic relationship through the general liking of a partner, a welcoming of him/her, friendly associating, being thankful, and preserving a partner's

state of well-being. All five of these dimensions combine to form the most valued factor in Companionate Love (Figure 2). Due to the high value placed on these dimensions, they are interpreted as defining dimensions for Companionate Lovers.

The factor of Unity consists of aspects of fellowship and a lack of preoccupation with their partner. The fellowship aspect includes *Commitment*, *Communion*, and *Devotion*, described as being pledged and dedicated to a partner and the sharing of thoughts, feelings, possessions, and actions with him/her. Companionate Lovers are not overwhelmed by *Irrationality* or *Obsession*, acting rationally, driven by attraction towards a partner that is less intense than *Obsession*. Interpretation of this factor depicts the same dimensions as unity, but with some differences from Passionate Love. Like in Passionate Love, *Commitment* and *Communion* are paired together as unity, but this factor portrays its lack of *Obsession* and *Irrationality*. Additionally, Companionate Lovers include *Devotion* to form fellowship. As shown by their higher value, the preferred dimensions depict fellowship: a very desirable relationship to most.

The factor of Harmony consists of *Faith*, *Intimacy*, and *Understanding*, the ability to confidently depend on a partner, close feelings towards him/her, and sympathetic comprehension of him/her. To Passionate Lovers, *Intimacy*, being related to *Acceptance* and *Forgiveness* represent Closeness. While to Companionate Lovers, *Intimacy*, being related with *Faith* and *Understanding* represents Harmony as a more mature feeling of intimacy. Harmony is a synchronization with a partner, depicted as knowing what a partner is going to do, sympathizing with a partner, and feeling truly intimate with him/her.

The factor of Fondness consists of *Affection*, *Elation*, and *Yearning*, depicted as tender, joyful feelings of great pleasure towards a partner and intense desire to be physically closer with him/her. While in Passionate Love, *Affection* appears as a representation of relationship in early development; when contrasted with *Gratitude* what appears to be a reaction to needing to have needs met. In Companionate Love, *Affection*, *Elation*, and *Yearning* combine to represent Fondness, as an advanced and more mature feeling of *Affection* compared to Passionate Love.

The factor of Attachment consists of *Attachment Anxiety* and *Longing*, feelings of nervousness about being abandoned by a partner and an eager desire to be closer to a partner. To Passionate Lovers, *Longing* is related to *Interpersonal Mattering*, and depicted the desire for reassurance of a person's mattering through *Longing* to a partner. To Companionate Lovers, *Longing* and *Attachment Anxiety* were rated relatively low, meaning that Companionate Lovers do not experience these feelings as intensely as Passionate Lovers, likely because they are already together and have been for an extended period of time. *Longing* and *Attachment Anxiety* are in the same factor because *Longing* represents the feelings of insecurity that accompany an attachment in the case of being abandoned.

The factor of Amplification consists of *Admiration* and *Idealization*, a respectful attitude towards a partner as impressive, and magnification of the image of a partner. These two dimensions both carry low value (Figure 2) for Companionate Lovers. *Admiration* and *Idealization* as Amplification would represent idealistic perceptions of a partner that are likely exaggerated. In the case of Companionate Love, the negative loading of both *Admiration* and *Idealization* can be interpreted as a tendency of Companionate Lovers to prefer a realistic respect rather than an idealized admiration.

The factor of Autonomy consists of two aspects, *Forgiveness*, accepting a partner unconditionally, and *Reliance*, needing a partner to satisfy needs. Autonomy is depicted as a lack of *Reliance* on a partner, and resulting in *Forgiveness*. In Companionate Love, people feel autonomous, while also connected with their partner in a less dependent manner. This gives Companionate Lovers the ability function independently from each other, but still benefit from mutual exchange.

Sharing, having connected interests and other things between oneself and a partner, comprises the remaining factor and represents the most salient characteristic of Companionate Love. Companionate Lovers have a lot in common after extended time spent together. This factor-dimension relates to many others, but stands alone.

The interpretation of Passionate and Companionate Love presented above admit topological interpretation. That means that they consist of the same, not different feelings, but these feelings are structured differently and represented in different degrees.

Comparing Passionate and Companionate Lovers

The regression analysis revealed many different characteristics of lovers related to gender, age, relationship type, duration, and how in love participants were. These different characteristics acted as predictors for participants' assignment into Passionate or Companionate Love.

Males prefer to be engaged in Passionate Love to Companionate Love. Passionate Lovers are typically younger, and the duration of their relationships are generally shorter (two years or less) and were in dating relationships and engagement. Females prefer Companionate Love to Passionate Love. Companionate Lovers are generally older than Passionate Lovers; most stated their relationships had been maintained for over two years, and state being in engaged or married. Additionally, Companionate Lovers are more in love with their partner than Passionate Lovers are, as well as more religious.

Companionate Love looks more harmonious in terms of balance in ratings of various dimensions. Companionate Lovers are more multidimensional in their feelings than Passionate Lovers, who tend to focus on a few dimensions rather than the full spectrum of the multidimensional structure.

These findings are in accord with previous findings of Hatfield, Rapson, and their colleagues regarding the psychological nature of Passionate and Companionate Love. They maintain that Passionate love should exist primarily in the initiation of a relationship. Companionate love should remain stable and develop throughout a relationship. Their findings were that Passionate love generally exists in relationship initiations but dwindles over time. In particular, [Hatfield, Nerenz, Greenberger, Lambert, and Sprecher \(1982\)](#) further studied Passionate and Companionate love through interviews with newlywed couples and found that women tended to have more companionate relationships. No significant difference exists between the passionate love of men and women. For men and women, time decays the intensity of both Companionate and Passionate loves. Our research substantially extends these observations regarding descriptive characteristics about these types of love.

Passionate and Companionate Love have been extensively researched for many years. This study advanced the interpretation of these two constructs through identification of 33 dimensions of love. These findings illuminate a more sophisticated structure of love than previous work. Building off previous research, the structure revealed by the MLS has provided a comprehensive and entirely measurable set of dimensions for a romantic love.

In addition to revealing the valid and reliable dimensions, the structure and typology of love came to light. The factor structures act as a road map through the complex facets of a romantic relationship. The MLS is a mosaic instrument with the capability to measure love's complexities. However, the scale does not need to be used as a whole instrument; subscales of the MLS can allow researchers to build their own instruments from its subscales. MLS is the comprehensive set of subscales, which can be used flexibly to various tasks of love research to study models of love that people have.

The further study of love with the MLS in longitudinal studies could reveal tendencies, patterns, and more defining characteristics of both Passionate and Companionate Lovers, as this could be a view of love over the course of a given period of time and how it changes and shifts. The study of sub-typologies of dimensional structures will be an interesting further direction of research that extends the existing models of love.

Conclusion: What is Love?

With this knowledge at hand now, the question still begs...*What is Love?* As decades of research, philosophy, and culture have shown, the answer is nothing short of complex. However, building on the work that already exists on Passionate and Companionate love, we presented comprehensive descriptions of Passionate and Companionate Love in terms of dimensions and factors contributing to them.

In this research we brought many new dimensions in the arena of love research and proposed psychometrically solid scales for their measurements in the Multidimensional Love Scale (MLS). Many of these constructs are legitimate love feelings, but have not been studied in the context of love research until now. Love is a social construct and different people may experience certain combinations of these feelings in their love to a partner. There is no one universal definition of love, but multiple. Different cultures and different people create their own understanding of love. Love is defined by a person or culture in terms of a combination of various dimensions. Yet, there are typologies of love: Passionate and Companionate Love are among the most popular. They were confirmed in our empirical study and extended in their descriptions, contributing factors, and variables.

Passionate Love is driven by passion, sexual desire, and needs satisfaction. Passionate Love is likely experienced in the early stages of a romantic relationship. Passionate Love relationships try to grow, but may still struggle to preserve themselves. Preferred by males, Passionate Love can appear irrational as Passionate Lovers strive to be closer to their partners, sometimes despite the consequences. Passionate Lovers emphasize partnership, with a deepened sense of unity and synchronization with a partner as compared to friendship. Relationships with mutual benefits over selfless caretaking are preferred. Passionate Lovers hold themselves responsible to protect and serve their partner, not to possess him/her. Passionate Lovers seek partners they perceive as special and remarkable, and believe them to be compatible based on their perception. Passionate love can mature into companionate love as the relationship progresses.

Companionate love represents a partner's mature and long-term devotion to their partner; rather than satisfaction of needs, companionate love is selfless, caring for and treating the partner as an extension of their self. Companionate Love is preferred by females. Companionate Lovers are generally invested into their relationship, accepting their partner with gratitude and seeking to serve him/her and know him/her better. Obsession and Irrationality are less common among Companionate Lovers, as their unity and harmony with their partner generally appears rationally, and their attachments to their partners are generally secure. Feelings of joy and sexual desire exist in re-

spectful forms through affection and fondness. Companionate Lovers place a higher emphasis on care and service to their partner rather than on their suitability to their partner. Equality is sought after over any feelings of possessiveness of the partner, and amplification of a partner is not typical for Companionate Love. Lastly, an emphasis is placed on sharing and connectedness between partners in Companionate Love, but Companionate Lovers may still maintain autonomy, forgive their partner for their errors, and exist peacefully and independently in their romantic relationship.

Therefore, to answer the timeless question of what is love: Love is a complex phenomenon comprised of at least 33 dimensions experienced by two individuals who connect with each other; this phenomenon divides into Companionate and Passionate Love, which are related to each other in a topological structure.

The new statistical approach which we employed in this study to identify the typology and structure of love, has demonstrated its advantages. It included the combination Two-Step Cluster Analysis of cases and Principle Component Analysis of dimensions while also using centered variable scores. This approach showed promising productiveness when used in the methodology of typological analysis.

Funding

The authors have no funding to report.

Competing Interests

The authors have declared that no competing interests exist.

Acknowledgments

The authors have no support to report.

References

- Aron, A., & Westbay, L. (1996). Dimensions of the prototype of love. *Journal of Personality and Social Psychology*, *70*(3), 535-551. doi:10.1037/0022-3514.70.3.535
- Berscheid, E. (2010). Love in the fourth dimension. *Annual Review of Psychology*, *61*(1), 1-25. doi:10.1146/annurev.psych.093008.100318
- Hatfield, E., Nerenz, D., Greenberger, D., Lambert, P., & Sprecher, S. (1982). *Passionate and companionate love in newlywed couples* (Unpublished manuscript). University of Wisconsin, Madison, WI, USA. Retrieved from <http://www.elainehatfield.com/60.pdf>
- Hatfield, E., & Rapson, R. L. (1993). *Love, sex, and intimacy: Their psychology, biology, and history*. New York, NY, USA: HarperCollins.
- Karandashev, V., & Clapp, S. (2015). Multidimensional architecture of love: From romantic narratives to psychometrics. *Journal of Psycholinguistic Research*, *44*(6), 675-699. doi:10.1007/s10936-014-9311-9