

Lovelogy: Toward An Integrative Science Of Human Love

Dr. Ignacio Bonasa Alzuria

Liderarte | Madrid, Spain

ORCID: 0009-0001-3940-4278 | Email: ibonasa@liderarte.org

Abstract

Background: Love influences mental and physical health, relational stability, prosocial behavior, learning, and social cohesion, yet the scientific literature remains fragmented across disciplines and often relies on heterogeneous definitions and metrics (Berscheid, 2010; Holt-Lunstad, Smith, & Layton, 2010).

Objective: To propose and delimit Lovelogy as an integrative scientific field dedicated to the systematic study of love, providing explicit demarcation criteria, a shared minimal theoretical core, and a reproducible agenda for measurement, mechanisms, and interventions (Sternberg, 1986; Hazan & Shaver, 1987).

Approach: This position paper synthesizes major research traditions—component models of love, adult attachment, compassionate love, communal norms, and social neuroscience—and articulates an operational architecture (the MAA Model) alongside a methodological pathway for scale development and validation (Clark & Watson, 1995; Hu & Bentler, 1999; Putnick & Bornstein, 2016).

Contributions: The paper (1) defines Lovelogy and differentiates it from adjacent constructs and non-scientific discourse; (2) proposes an operationalizable model (MAA: Bond, Eros, Care, Relational Ethics) with falsifiable predictions; (3) outlines minimum methodological standards (EFA/CFA, omega, measurement invariance, dyadic designs) and an ethical framework to prevent conceptual and applied misuse (Lilius et al., 2008; Young & Wang, 2004).

Implications: Lovelogy offers a common language and practical tools for education, health, organizations, and public policy—particularly in response to loneliness, relational violence, and erosion of social trust (Holt-Lunstad et al., 2010).

Limitations: As a programmatic manuscript, it presents no primary data. Empirical validation is required to test incremental validity versus adjacent constructs and to examine cross-cultural invariance and intervention effectiveness (Clark & Watson, 1995; Putnick & Bornstein, 2016).

Keywords: Lovelogy; science of love; attachment; compassionate love; relational ethics; relationships; psychometrics; well-being; open science.

Contribution and novelty

- Defines Lovelogy as a disciplined, falsifiable field focused on love as a biopsychosocial phenomenon, and specifies demarcation criteria that reduce conceptual drift.
- Proposes the MAA Model (Bond, Eros, Care, Relational Ethics) as an operational architecture that yields testable predictions and a practical risk matrix for distinguishing love from coercion and dependency.
- Introduces the core construct of Conscious Love as a higher-order configuration with observable indicators beyond self-report (e.g., repair latency, boundary respect, reciprocity).
- Provides a reproducible measurement roadmap (CLS item bank + validation pipeline) aligned with best practices in scale development, dyadic modeling, and cross-cultural invariance testing.

- Articulates an ethics-first applied framework for education, health, organizations, and policy that explicitly prevents misuse of 'love' language to justify harm.

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1. Introduction

Love is invoked as the foundation of human life and the emotional infrastructure of communities and institutions. Paradoxically, it is also one of the least consensual constructs in scientific language. We can measure aspects of love with increasing sophistication, yet we often accumulate knowledge discontinuously because the term “love” is used to denote multiple, partially overlapping phenomena (Berscheid, 2010). Lovelogy emerges from a methodological conviction: love can be studied scientifically without reducing it to mere neurochemistry or diluting it into unfalsifiable discourse. The problem is not the absence of evidence; it is the dispersion of evidence across parallel traditions—components-of-love models (Sternberg, 1986), adult attachment processes (Hazan & Shaver, 1987; Mikulincer & Shaver, 2007), passionate love (Sprecher & Fehr, 2005), communal norms (Clark & Mills, 1979), and social neuroscience of bonding (Young & Wang, 2004).

The contemporary context heightens the urgency: rising loneliness and weakening social ties carry measurable health costs, while relational violence and coercive dynamics remain persistent social problems. An integrative science of love is therefore not an academic luxury, but a scientific and social responsibility (Holt-Lunstad et al., 2010).

Anticipating a potential objection: Lovelogy is not an attempt to rebrand existing relationship science. Its purpose is integrative and methodological—reducing semantic inflation, improving measurement alignment, and adding an explicit ethical discriminant (Relational Ethics) so that interventions do not inadvertently strengthen harmful dynamics under the label of 'love'.

2. Definition and demarcation of Lovelogy

Proposed definition: Lovelogy is the interdisciplinary scientific discipline that studies love as a biopsychosocial phenomenon by describing its components, mechanisms, manifestations, contexts, and effects through testable models and valid measures, with orientation toward understanding and responsible intervention (Berscheid, 2010; Sternberg, 1986).

Positioning statement: Lovelogy is proposed as an integrative research framework within established relationship science and affective science. It does not rename or replace mature traditions (e.g., attachment, investment, intimacy, compassion research). Instead, it offers (a) explicit demarcation criteria for what counts as scientific evidence about love, (b) a modular operational architecture (MAA) that unifies mechanisms across traditions, and (c) an ethics-first

boundary that distinguishes love from coercion, dependency, and harm. The term 'Lovelogy' is introduced as a field-building label for cumulative work that meets these standards.

2.1. What it is (and what it is not)

Lovelogy is an integrative field—not a replacement of existing disciplines. It is a framework for cumulative knowledge about love, structured to enable measurement, prediction, and ethical application.

- It is not poetry, spirituality, or moral preaching—although it can dialogue with those domains.
- It is not self-help without falsifiable hypotheses, measurement, and reproducibility (Clark & Watson, 1995).
- It is not neuroreductionism that ignores meaning, culture, and relational context (Young & Wang, 2004).
- It is not a justification of control or sacrifice disguised as “love”; it explicitly distinguishes love from coercion and dependency.

2.2. Minimum criteria for accepting lovelogy-informed evidence

For a claim to count as Lovelogy (and not merely opinion), it should satisfy—at minimum—the following criteria:

- Operational clarity: constructs must be defined such that they can be measured or observed (Clark & Watson, 1995).
- Falsifiability: the claim must entail conceivable observations that would disconfirm it.
- Multimethod credibility: ideally combining self-report, behavioral indicators, dyadic data, and where relevant, physiological measures.
- Incremental validity: the construct should explain outcomes beyond adjacent constructs (e.g., satisfaction, empathy alone, attachment alone).
- Cross-context robustness: evidence should consider cultural and developmental variation; group comparisons require measurement invariance (Putnick & Bornstein, 2016).
- Ethical safeguards: research and application must protect autonomy, consent, dignity, and non-harm.

2.3. Border constructs and mandatory distinctions

Lovelogy requires strict distinctions to avoid conceptual inflation and applied harm:

- Love vs. desire: desire is motivational/sexual energy; love entails bond, care, and commitment beyond immediate reward (Sternberg, 1986).
- Love vs. attachment anxiety: intense neediness or fear of abandonment can mimic love but predicts instability (Hazan & Shaver, 1987).
- Love vs. dependency: dependency reduces autonomy and increases coercive dynamics; love protects autonomy.

- Love vs. altruism: altruism can be episodic; love implies relational continuity and mutual recognition (Sprecher & Fehr, 2005).
- Love vs. satisfaction: satisfaction is an evaluation; love is a system of motives, practices, and ethics (Rusbult, 1980).

3. State of the art and the fragmentation problem

3.1. Semantic confusion and applied risks

In scientific and popular discourse, the word “love” covers romantic attraction, attachment bonds, compassionate care, moral concern, and identity fusion. Without explicit demarcation, research becomes hard to synthesize and interventions risk targeting the wrong mechanism—for example, increasing “commitment” without improving safety, repair, and ethics (Rusbult, 1980; Gottman & Levenson, 2000).

Applied risk is not theoretical: conflating love with control legitimizes coercion; conflating love with passion normalizes volatility; conflating love with care-only may enable self-erasure. Lovelogy therefore treats conceptual clarity as an ethical imperative.

3.2. Temporality: trajectories and turning points

Love is dynamic. Turning points such as breaches of trust, chronic resentment, and successful repair are often better predictors of long-term outcomes than static intensity measures. Lovelogy therefore privileges longitudinal and event-based approaches (e.g., conflict episodes, repair sequences, life transitions) (Gottman & Levenson, 2000).

3.3. Evidence of impact on health and well-being

A large meta-analytic literature indicates that the quality and quantity of social relationships are associated with mortality risk and broader health outcomes, highlighting relational architecture as a major determinant of flourishing (Holt-Lunstad et al., 2010).

4. Shared minimum theoretical core

4.1. Structural pillar: components of love

Component models (e.g., intimacy, passion, commitment) provide a grammar for describing love profiles and their evolution, separating “intensity” from “stability” and enabling measurement of balanced versus skewed configurations (Sternberg, 1986).

4.2. Dynamic pillar: attachment and regulation

Attachment theory frames love as a bond that provides a secure base and shapes emotion regulation and threat responses. Attachment anxiety and avoidance often mediate the link between feeling and behavior (Hazan & Shaver, 1987; Mikulincer & Shaver, 2007).

4.3. Prosocial pillar: compassion and communality

Compassionate love emphasizes the intention and practice of caring for the other’s well-being and can be measured with validated scales (Sprecher & Fehr, 2005). Communal relationship norms highlight

responsiveness without immediate exchange logic, which characterizes mature love in families, friendships, and civic life (Clark & Mills, 1979).

4.4. Neurobiological pillar and social cognition

Bonding and caregiving implicate coordinated neurobiological systems (e.g., oxytocin/vasopressin and reward-learning circuits). Lovelogy treats neurobiology as one layer—important but never sufficient without meaning, ethics, and context (Young & Wang, 2004).

5. The MAA Model: an operational architecture of love

To make love scientifically tractable, Lovelogy proposes the MAA Model—four interdependent modules that jointly predict relational outcomes: Bond, Eros, Care, and Relational Ethics. The model is intended to generate testable hypotheses and to support measurement development aligned with established validation standards (Clark & Watson, 1995).

5.1. Operational definitions

Bond

Bond refers to felt security, trust, safe-haven and secure-base functions, and stable attachment-related expectations. Observable indicators include reliable availability, attunement, and effective repair after rupture (Hazan & Shaver, 1987; Gottman & Levenson, 2000).

Eros

Eros refers to attraction, desire, motivational energy, novelty, and embodied approach tendencies. It contributes vitality but does not guarantee stability or non-harm (Sternberg, 1986).

Care

Care refers to compassionate responsiveness: noticing needs, reducing suffering, supporting growth, and sustaining benevolent action over time (Sprecher & Fehr, 2005).

Relational Ethics

Relational Ethics refers to dignity, consent, autonomy protection, truthful communication, non-coercion, fairness, and accountable repair. It is the discriminant module that separates love from its “false doubles” (control, manipulation, self-erasure).

5.2. Predictions and risk matrix

The MAA Model yields falsifiable predictions and a practical risk matrix. For example: high Eros with low Ethics predicts volatility and coercive dynamics; high Care with low Bond predicts burnout or one-sided caregiving; high Bond with low Care predicts emotional coldness; high Ethics with low Care predicts “correctness without warmth.” These predictions are testable via dyadic designs and longitudinal assessment (Gottman & Levenson, 2000; Kenny et al., 2006).

6. Conscious Love: the core construct

Lovely proposes Conscious Love as a higher-order configuration of the MAA modules characterized by (a) secure bonding, (b) sustained compassionate care, and (c) ethical relational practice, with Eros as a modulator rather than a foundation (Sternberg, 1986; Sprecher & Fehr, 2005).

6.1. Observable indicators

Conscious Love should be observable beyond self-report. Examples include:

- Conflict de-escalation and repair within a bounded time window (Gottman & Levenson, 2000).
- Respect for boundaries and explicit consent.
- Reciprocal responsiveness across time (Clark & Mills, 1979).
- Truthful communication and accountability for harm.
- Protection of the other's autonomy and life project.

6.2. Differentiation from false forms of love

Lovely distinguishes Conscious Love from obsessive attachment (Hazan & Shaver, 1987), instrumental love (Rusbult, 1980), self-erasing care, and pseudo-ethics.

7. Lovely-informed typology and objects of love

7.1. Proposed classificatory axes

To support comparative research, Lovelyly proposes axes to classify love episodes and relationships (Sternberg, 1986):

- Target: self, partner, family, friends, community, humanity, purpose.
- Temporal scope: momentary resonance vs. stable commitment.
- Dominant module: Bond-led, Eros-led, Care-led, Ethics-led profiles.
- Reciprocity: mutual, asymmetrical, or institutionalized (e.g., caregiving roles).
- Risk level: vulnerability to coercion, burnout, or erosion of dignity.

8. Research agenda and roadmap

8.1. Phase I: measurement and consensus

Goal: build shared definitions and instruments via expert consensus, cognitive interviews, and initial psychometric validation (Clark & Watson, 1995).

8.2. Phase II: mechanisms and trajectories

Goal: test mechanisms and developmental trajectories using longitudinal cohorts, daily diaries, and dyadic models (Kenny et al., 2006).

8.3. Phase III: intervention and policy

Goal: evaluate interventions and policy programs using rigorous trials and ethical oversight (Holt-Lunstad et al., 2010).

9. Recommended methodologies

9.1. Dyadic designs

Because love is relational, dyadic models (e.g., Actor–Partner Interdependence Models) are essential to

separate within-person effects from cross-partner influence (Kenny et al., 2006).

9.2. Measurement model standards

Scale validation should follow best practices: content validity and item development (Clark & Watson, 1995), structural testing via EFA/CFA, reporting reliability, evaluating model fit (Hu & Bentler, 1999), and testing measurement invariance before interpreting group differences (Putnick & Bornstein, 2016).

9.3. Power, sample size, and robustness checks

Lovely-informed models often include dyadic interdependence, latent variables, and longitudinal dynamics. Accordingly, power should be planned for the specific estimand (actor and partner effects, moderation by Ethics, or growth parameters over time). As a practical baseline, scale development with confirmatory factor analysis typically benefits from $N \geq 300$, whereas dyadic APIM models are more stable with 200+ dyads depending on model complexity. Robustness checks should include sensitivity analyses for missing data mechanisms, alternative plausible measurement models, and preregistered confirmatory tests where feasible.

9.4. Multi-method measurement and criterion validity

To reduce mono-method bias, Lovelyly recommends converging evidence from (a) self-report (CLS and adjacent scales), (b) partner-report, (c) behavioral observation (support tasks, conflict discussions, repair sequences), and (d) ecological momentary assessment (short daily items capturing Bond, Care, Ethics, and Eros). Criterion validity should be established against theoretically relevant outcomes such as repair success, perceived safety, violence-risk indicators, loneliness, and well-being. Where appropriate, digital trace data may be used only under explicit consent, strict privacy safeguards, and transparent data governance.

9.5. Cross-cultural transportability and measurement invariance

If Lovelyly aims to serve as a global science of love, cross-cultural transportability is not optional. The same item can carry different moral and emotional meanings across cultures, and response styles vary. Therefore, measurement invariance testing (configural, metric, scalar) should be conducted before interpreting group differences, and qualitative work (cognitive interviewing, focus groups) should accompany quantitative adaptation. Where full invariance is not met, partial invariance approaches may be explored, but conclusions must be explicitly bounded.

9.6. Ethics and safety in love research

Because love research touches intimacy, sexuality, trauma, and coercion, Lovelyly must treat safety as a first-class methodological requirement.

Recommended safeguards include violence-risk screening; referral pathways; avoiding procedures that provoke escalation without support; ensuring voluntary participation and withdrawal; and implementing privacy-by-design for any digital or physiological measures. Importantly, relational ethics is not only a theoretical module in the MAA Model; it is also the ethical foundation of Lovelogy as a discipline.

10. Applications: education, health, and organizations

10.1. Education

In education, Lovelogy supports social-emotional learning and prevention of relational violence by teaching boundaries, consent, repair, and communal responsibility.

10.2. Health

In health, Lovelogy informs interventions for loneliness and broader well-being, treating relational architecture as a modifiable determinant of health (Holt-Lunstad et al., 2010).

10.3. Organizations

In organizations, Lovelogy informs cultures of care and compassion that reduce burnout and sustain performance with dignity (Lilius et al., 2008).

10.4. Public policy: loneliness, violence prevention, and civic trust

At the policy level, Lovelogy can help operationalize relational health as a measurable public good. Loneliness is not merely an individual feeling; it is often the visible symptom of weakened relational infrastructure (family fragility, social atomization, precarious work, digital substitution of presence, and reduced community participation). Policy interventions may therefore target (a) accessible community spaces, (b) intergenerational programs, (c) relationship education and consent literacy, and (d) early detection and referral systems for coercive control. Lovelogy provides a conceptual and measurement toolkit for evaluating whether programs improve Bond (felt safety and trust), Care (responsiveness), and Ethics (non-coercion, dignity) rather than merely increasing contact frequency.

A key policy principle is harm reduction: increasing “togetherness” without Ethics can raise risk for vulnerable individuals. Accordingly, lovelogy-informed metrics should include safety indicators and autonomy protection, and implementation should integrate trauma-informed and violence-prevention protocols.

10.5. Operational Lovelogy in organizations: indicators and governance

Organizations increasingly measure engagement and well-being, but often lack constructs that distinguish genuine care from performative care. Lovelogy

suggests operational indicators aligned with the MAA modules:

Bond indicators may include psychological safety, predictable managerial availability, and repair capacity after conflict. Care indicators may include responsiveness of systems to employee needs (workload correction, mental health access, flexibility) and peer support. Ethics indicators include fairness in decision-making, transparency, consent-respecting data practices, anti-harassment enforcement, and accountability for harm. Eros, in organizational terms, can be reframed as vitality and motivational energy—innovation climate, meaning, and creative activation—without collapsing into 'hustle culture'.

Critically, Lovelogy recommends that organizational measurements be paired with governance: clear reporting channels, protection against retaliation, and independent oversight. Otherwise, measurement can become a tool of control—precisely what Lovelogy defines as 'false love' in institutional form.

11. Illustrative cases (vignettes) for research and intervention

Case 1: High Eros, Low Ethics

Intense passion coexists with monitoring, jealousy, and control. Prediction: volatility and coercion risk unless Ethics and Bond security increase.

Case 2: High Care, Low Bond

Extensive support exists, but the bond is unreliable. Prediction: caregiver fatigue and resentment; intervention targets Bond and repair (Gottman & Levenson, 2000).

Case 3: High Ethics, Low Care

Respectful relationship with emotional coldness. Prediction: stability with low vitality; intervention targets Care.

Case 4: High Bond, Fluctuating Eros

Secure commitment with declining desire. Prediction: stability; novelty can restore vitality without compromising Ethics.

Case 5: Communal love

Mutual-aid network increases solidarity and resilience; research can measure communal care norms (Clark & Mills, 1979).

Case 6: Love toward a purpose

Long-term commitment to a pro-social mission; resilience depends on support and self-care.

12. Conclusion

Lovelogy is proposed as a disciplined, falsifiable, and ethically grounded science of love. Its contribution is to make love empirically tractable through an operational architecture (MAA), a core construct (Conscious Love), and a roadmap for cumulative research and ethically effective application (Clark & Watson, 1995; Hu & Bentler, 1999; Putnick & Bornstein, 2016).

13. Limitations of the present position paper

This manuscript proposes a disciplinary architecture and operational model, but it does not provide primary empirical results. Accordingly, its claims should be treated as hypotheses and a research program rather than established facts. In addition, the MAA Model must demonstrate incremental validity over adjacent frameworks (attachment dimensions, investment model constructs, and global relationship satisfaction). Cross-cultural generalization requires careful adaptation and invariance testing, and applied interventions must be evaluated for unintended effects.

14. Future directions and minimal empirical package for field legitimacy

To consolidate Lovelogy as a credible scientific field, a minimal empirical package is recommended: (1) preregistered validation of the CLS (EFA + CFA, reliability, convergent and discriminant validity); (2) a dyadic study testing actor-partner effects and the moderation role of Relational Ethics; (3) a longitudinal design linking module change to repair success, wellbeing, and loneliness; and (4) a pilot randomized intervention (8-session protocol) to estimate effect sizes and feasibility. A fifth strand—organizational Lovelogy—should test whether ethics-centered caring cultures reduce burnout and increase psychological safety without masking performance harms.

15. Practical checklist for Lovelogy submissions

For rapid editorial evaluation and reproducibility, Lovelogy manuscripts should include explicit construct definitions; measurement details; preregistration information (when applicable); sampling and power rationale; handling of missing data; effect-size reporting; invariance checks for group comparisons; and a clear ethics and safety statement for intimate or high-risk topics. This checklist is

intended to accelerate cumulative science and reduce conceptual drift as the field grows.

16. Implementation guide for researchers and practitioners

To prevent conceptual dilution, Lovelogy initiatives should begin with a written construct charter: definitions, boundaries, and a short list of falsifiable predictions. This charter should be shared with all collaborating disciplines (psychology, sociology, neuroscience, education, organizational studies) to ensure consistent operationalization.

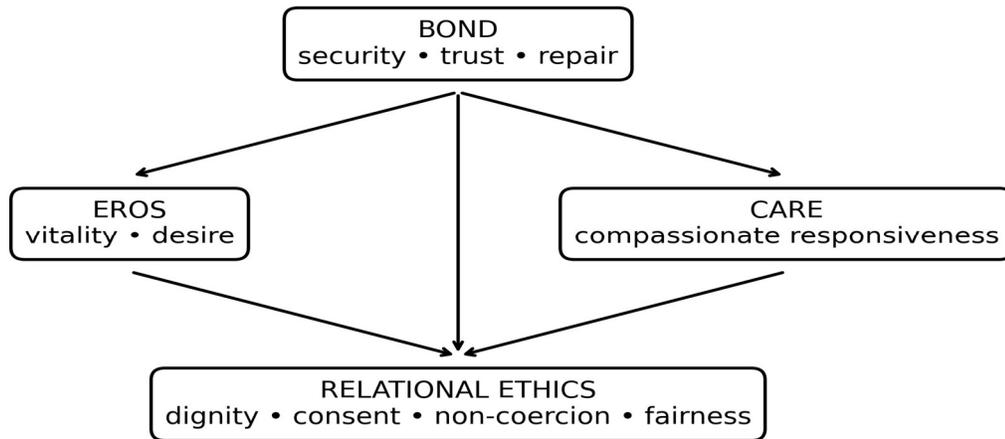
For empirical work, the minimum recommended package is: CLS + an attachment measure + a satisfaction measure + at least one behavioral or dyadic indicator (e.g., repair latency, partner responsiveness, consent/boundary respect). This package enables incremental validity tests and reduces the risk of re-labeling existing constructs without added explanatory power.

For practical programs (education, therapy, organizations), Lovelogy recommends separating three layers: (1) skills (communication, repair, consent), (2) systems (norms, governance, accountability), and (3) meaning (shared purpose). Programs that focus only on skills without systems may inadvertently reinforce coercive dynamics; programs that focus only on meaning without skills may become inspirational but ineffective.

Figures and tables

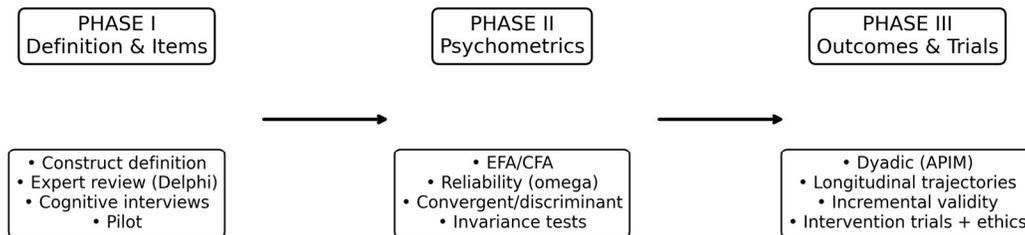
Figure 1 and Figure 2 are embedded below as publication-ready diagrams. If the journal requires separate figure files, export the embedded images as PNG at 300 dpi.

Figure 1. The MAA Model (Bond, Eros, Care, Relational Ethics).



Outcomes (testable): stability • wellbeing • health • prosociality • non-violence
 Core hypotheses: Ethics moderates Eros effects; Bond supports repair; Care predicts responsiveness.

Figure 2. CLS validation roadmap (three-phase program).



Reporting: preregistration • reproducible analyses • invariance for comparisons.

Annex A. Conscious Love Scale (CLS) — initial item bank (28 items)

Items are phrased for a 1–7 Likert scale (Strongly disagree–Strongly agree) and must be refined via expert review and cognitive interviewing prior to validation (Clark & Watson, 1995).

Bond

- I can rely on this person when I feel emotionally vulnerable.
- When we have conflict, we usually find a way to repair it.
- I feel safe being my true self in this relationship.
- This person is emotionally available when it matters.
- I trust this person to protect what is important to me.
- We can talk about difficult topics without fear of retaliation.

- After a rupture, we return to connection with respect and care.

Eros

- I experience desire and attraction toward this person.
- There is vitality and playfulness between us.
- We cultivate moments of novelty that reconnect us.
- Physical affection is natural and welcomed by both of us.
- I feel emotionally and physically drawn to this person.
- Our intimacy feels alive rather than mechanical.
- We can talk openly about our desires and preferences.

Care

- I try to understand this person’s needs, even when they are not explicit.
- I support this person’s growth and life project.
- When this person suffers, I respond with genuine care.
- I offer help without humiliating or controlling.

- We take care of each other's well-being in daily life.
- I celebrate this person's successes without envy or competition.
- I can ask for care as well as give it.

Relational Ethics

- In this relationship, "no" is respected without punishment.
- We do not use guilt, silence, or threats to get what we want.
- Consent is explicit, especially around intimacy and sexuality.
- We tell the truth even when it is uncomfortable.
- We respect each other's autonomy and friendships.
- When I harm the other, I acknowledge it and repair it.
- Power is not used to dominate; decisions are negotiated fairly.

Annex B. Minimal dyadic study protocol

Purpose: To test the MAA Model and the CLS using dyadic data, separating actor and partner effects (Kenny et al., 2006).

- Design: Dyadic survey + optional interaction task (support or conflict discussion).
- Sample: Couples or caregiving dyads; $N \geq 200$ dyads recommended depending on model complexity.
- Measures: CLS, attachment, satisfaction, conflict/repair indicators, well-being; optional physiological synchrony.
- Procedure: Baseline; 30-day diary; follow-up at 3 and 6 months.
- Analysis: CFA; invariance; dyadic modeling; longitudinal trajectories; incremental validity.
- Ethics: violence screening; referral procedures; informed consent; confidentiality.

Annex C. Brief intervention protocol (8 sessions) based on the MAA Model

Blueprint for future randomized studies; not a substitute for clinical training.

Session 1. Map of real love (shared diagnosis)

Goals: Shared MAA profile; identify ruptures/power dynamics; set safety rules.

Session 2. Safety and secure base

Goals: Strengthen Bond; rituals of availability; repair agreements.

Session 3. Emotional regulation and de-escalation

Goals: Time-outs; self-soothing; reconnection routines.

Session 4. Compassionate care and legitimate needs

Goals: Responsiveness training; needs vs. demands; non-coercive requests.

Session 5. Relational ethics: boundaries, consent, dignity

Goals: Boundary language; consent; fairness; eliminate guilt/threat.

Session 6. Repair: apology and restitution

Goals: Acknowledgement, apology, concrete repair plans.

Session 7. Shared project and behavioral commitment

Goals: Joint meaning; weekly actions; autonomy-togetherness balance.

Session 8. Maintenance plan

Goals: Early warning signals; check-ins; support resources.

Appendix D. Glossary of core terms (standardization aid)

Loveology: The interdisciplinary scientific field focused on testable models, valid measurement, and ethically responsible applications of love as a biopsychosocial phenomenon.

MAA Model: A modular operational architecture of love comprising Bond, Eros, Care, and Relational Ethics.

Bond: Security, trust, safe-haven/secure-base functions, and repair capacity.

Eros: Desire, attraction, vitality, novelty, and embodied motivational energy.

Care: Compassionate responsiveness and support for growth over time.

Relational Ethics: Dignity, consent, autonomy protection, fairness, truthfulness, non-coercion, and accountable repair.

Conscious Love: A higher-order configuration where Bond, Care, and Ethics are strong and coherent, and Eros functions as a modulator rather than a destabilizing foundation.

False doubles of love: Patterns that imitate love language but violate autonomy and dignity (coercion, manipulation, instrumentalization, self-erasure).

Appendix E. Extended vignettes for coding and training (optional)

These brief extensions show how the MAA framework can be used to code relational episodes and to design micro-interventions. They are intentionally written in operational language to facilitate empirical coding schemes.

Vignette A: Repair after rupture (Bond + Ethics)

Episode: During a conflict, Partner A raises their voice and insults Partner B. Within two hours, Partner A initiates repair: acknowledges harm, apologizes without justification, asks what support is needed, and agrees to a concrete behavioral change (no insults; timeout procedure). Coding cues: time-to-repair; accountability; non-defensiveness; restitution plan. Prediction: stable Bond when repair is reliable; Ethics protects against normalization of harm.

Vignette B: Boundary respect in intimacy (Ethics + Eros)

Episode: Partner B says 'not tonight' regarding sexual intimacy. Partner A responds with warmth, no guilt or

withdrawal, and suggests alternative closeness (conversation, touch) while explicitly affirming consent. Coding cues: response to 'no'; absence of punishment; alternative bonding actions. Prediction: Ethics moderates Eros; safety increases long-term desire.

Vignette C: Care without control (Care + Ethics)

Episode: One partner offers help during stress but checks consent ('Do you want advice or just presence?'). They avoid rescuing or infantilizing, and they respect the other's autonomy. Coding cues: consent checks; autonomy language; responsiveness. Prediction: care strengthens Bond when delivered without control.

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About the author

Dr. Ignacio Bonasa Alzuria is a Spanish leader in human development and organizational culture, and the Founder and Executive President of Liderarte (Madrid, Spain). He also serves as President of the European Association of Wellbeing, President of the European Association of Soulful Organizations, and President of the International Association “Dale la Vuelta a la Tortilla” (Turn the Table)—a global movement that reframes pain into “vitamins for the soul” through ethical leadership, care, and collective responsibility.

With a background in senior executive leadership and a long-standing commitment to evidence-informed practice, his work integrates experiential learning through art and the 4A Model (Learning, Attitude, Soul, Action). His current research agenda connects relational health, moral influence, and institutional culture, promoting measurable approaches to care, dignity, and non-coercion in personal, educational, organizational, and civic contexts.

Academic credentials include multiple doctoral and postdoctoral recognitions in leadership, education, business administration, and organizational wellbeing:

- PD in Leadership and Organizational Transformation — European International University, Paris (2024).
- PhD in Strategic Educational Administration — Universidad Internacional Ignacio Castro Pérez, Mexico (2025).
- PhD in Leadership — Universidad del Caribe y Latinoamericana, Curaçao (2025).
- DBA (Doctor in Business Administration) — Institute of Management and Technology (EIMT), Switzerland (June 2026).
- Honorary Doctorate (Honoris Causa) — Several Doctoral Claustros in Mexico (2025 y 2026).
- Honorary Doctorates (Honoris Causa) — Several International Universities in Latin America (2024/2025/2026).
- Postdoctoral Studies in Administrative Sciences and Executive Leadership through AI, in Philosophy and Multidisciplinary Scientific Research and in Organizational and Workplace Wellbeing — Universidad Claustro Humanista & NELKUALI, Mexico (2025 y 2026).

He is the author of *The Recipe for Well-Being* and develops research-informed programs that connect individual flourishing, relational health, and institutional responsibility. ORCID: 0009-0001-3940-4278. Contact: ibonasa@liderarte.org.