

WE JUST CLICK

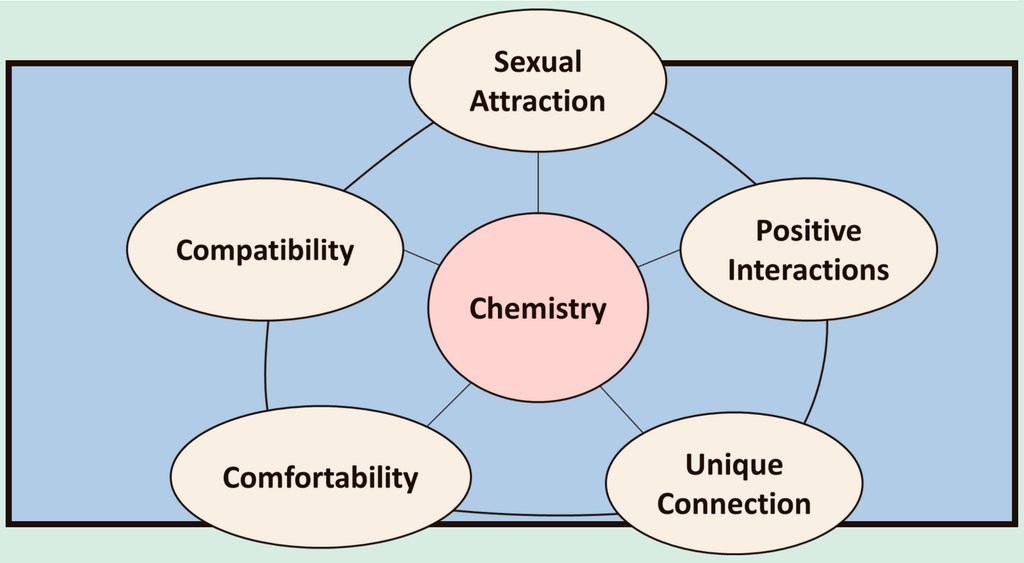
DEVELOPMENT OF THE ROMANTIC CHEMISTRY SCALE

Eric Tu, Alex Liepmann,
Harry Reis, & Amy Muise

SHaRe Sexual Health and Relationships

YORK UNIVERSITÉ UNIVERSITY

The Romantic Chemistry scale is a valid, reliable measure associated with key factors influencing dating decisions and relationship maintenance.



01

Selecting a high-quality partner is one of the most consequential decisions a person makes in their lifetime. One way people choose a partner is by comparing them to an ideal standard of traits they desire (e.g., warmth, vitality, resources), but research on the predictive power of an ideal-partner match is inconsistent. However, relationship decisions are not purely rational and people may rely on ***felt chemistry*** or an unspoken connection. To test these ideas, we need a comprehensive measure of romantic chemistry.

Table 2 - Study 4 Confirmatory Factor Analysis

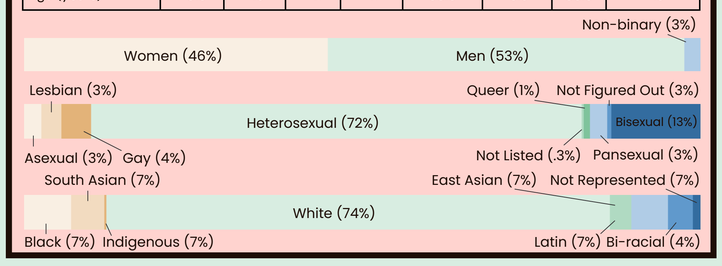
Item (1 = Not at all, 4 = Somewhat, 7 = Completely)	**Factor Loading**	**Mean**
Factor 1: Compatibility		
We feel like we are right for each other.	0.92	5.1
It feels like we are better together than individually.	0.84	5.0
We are compatible with each other.	0.89	5.4
We are on the same page about what we want out of life.	0.78	5
We fit together.	0.92	5.3
Factor 2: Comfort		
We feel comfortable opening up to each other.	0.88	5.5
We can communicate easily with each other.	0.81	5.6
We can be ourselves around each other.	0.85	5.9
We have deep conversations.	0.77	5.3
We can share our dreams, goals, ambitions, and desires with each other.	0.82	5.5
Factor 3: Unique Connection		
It feels like we have a magnetic pull toward each other.	0.89	5.0
We feel an unexplainable "spark" when we are together.	0.88	5.0
When we are together it feels like nobody else is around.	0.75	4.9
We have a special connection compared to other relationships.	0.83	5.1
We are drawn to each other.	0.90	5.4
Factor 4: Positive Interactions		
We have playful banter.	0.78	5.8
We smile often when we are together.	0.87	5.7
We genuinely make each other laugh.	0.86	5.8
We have a lot of fun together.	0.89	5.7
We enjoy each other's company.	0.88	6.0
Factor 5: Sexual Attraction		
We feel a sexual connection.	0.92	5.3
We are sexually attracted to each other.	0.91	5.5
We have an intense desire for each other.	0.92	5.0
We have a strong physical connection.	0.92	5.2
We have an intense attraction toward each other.	0.92	5.1

02

Across four studies (N = 2609, $M_{rel\ length}$ = 9.3, $SD_{rel\ length}$ = 8.9; see Table 1) using mixed methods, we developed a measure of romantic chemistry, assessed the reliability/validity of our measure, tested predictions about the associations with outcomes for single people and people in romantic relationships. In all studies, we aimed for an even split of single and partnered people and 20% from underrepresented groups.

Table 1 - Demographics across all four studies

	Study 1 Item Generation (n = 200)		Study 2 Item Evaluation (n = 201)		Study 3 Factor Identification (n = 1094)		Study 4 Factor Confirmation (n = 1114)	
Demographic	***M* or *n***	***SD* or %**	***M* or *n***	***SD* or %**	***M* or *n***	***SD* or %**	***M* or *n***	***SD* or %**
Age (years)	40.5	11.6	41.7	11.7	38.6	13.9	36.3	12.5



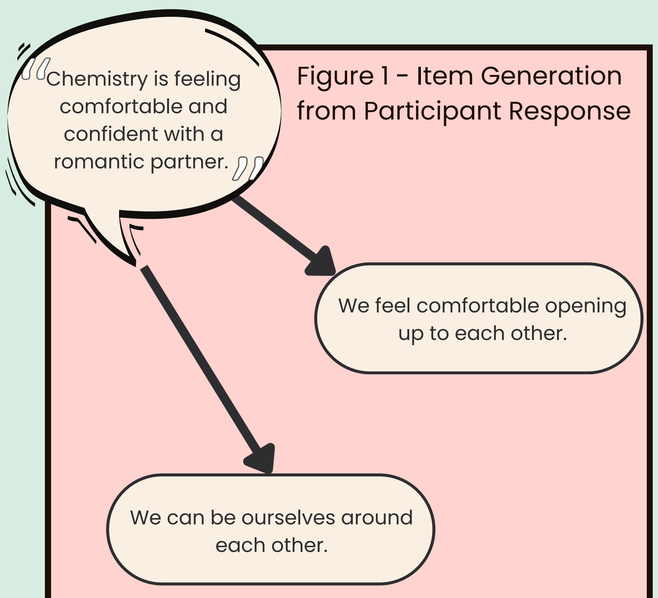
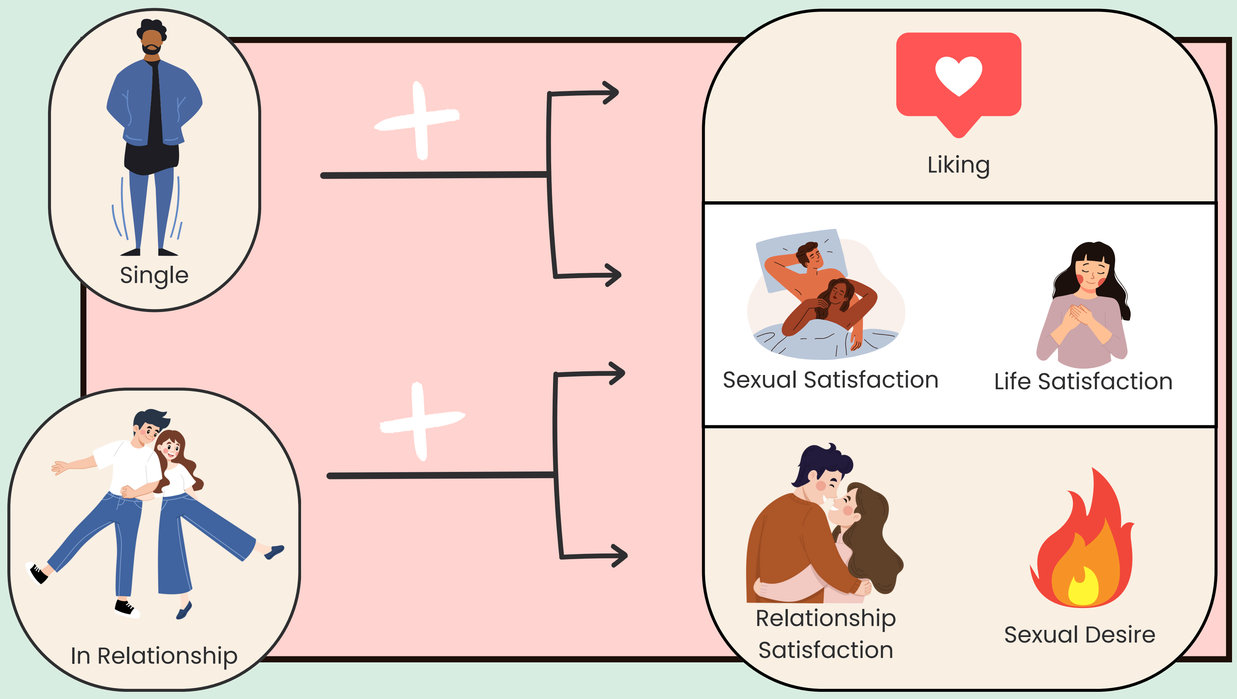


Figure 1 - Item Generation from Participant Response

03

We used participants' open-ended definitions of chemistry from Study 1 to generate 148 items for people to evaluate in Study 2 (see Figure 1). We retained the 63 most highly endorsed items and conducted EFA/IRT in Study 3 to provide support for a 25-item five-factor structure. In Study 4, we conducted CFA to confirm the five-factor structure (see Table 2). Assessing romantic chemistry as a composite, the measure had good reliability (ω = .98, 95% CI [.974, .979]), and evidence of concurrent (r = .86), convergent (r = .50) and discriminant (r = .14) validity. It is invariant by gender and sexual orientation.



04

The current research provides a validated measure of romantic chemistry and initial evidence that chemistry is associated with relationship interest and satisfaction in North American and European samples. The findings may help explain why people's preferences do not consistently predict partner selection and enable testing of whether romantic chemistry can predict long-term satisfaction. In two planned future studies, we will assess romantic chemistry after people's first date and follow them over time to better understand whether chemistry is associated with relationship formation and long-term relationship quality.

erictu@yorku.ca