



Interpersonal Relationships

Contents

- * The Role of Dopamine in Romantic Relationships
- * The Matching Hypothesis & Relationships
- * Self-Disclosure & Relationships
- * Social Exchange Theory & Relationships



Dopamine

- Neurotransmitters are **chemical messengers** transported via electrical impulses from the **presynaptic neuron** to the **postsynaptic neuron** across the **synaptic cleft**
- They allow communication between cells, both **within the brain** and **between the brain and body**

Dopamine: the monoamine neurotransmitter

- Dopamine belongs to a group of neurotransmitters called **monoamines**
- Brain regions involved in dopamine production include:
 - **Ventral tegmental area (VTA)**
 - **Nucleus accumbens**
 - **Caudate nucleus**
 - **Basal ganglia**

Functions of dopamine

- Dopamine plays a key role in **movement and motor skills**, with deficiency linked to the development of **Parkinson's disease**
- Irregular levels of dopamine have been associated with **schizophrenia**, forming the basis of the **dopamine hypothesis**
- Dopamine is strongly linked to **reward and motivation**, as it is associated with pleasure, reinforcement, and euphoria, driving behaviour through positive consequences

Dopamine & romantic love

- Dopamine is strongly associated with **addiction**, specifically the **surge** of feelings and sensations experienced with drugs such as **cocaine**
 - E.g., euphoria, excitement, thrills, feeling **'high'**
- Fisher et al.'s (2005) research focuses on the 'heady' experience that comes with the **early stages of romantic love**:
 - Not being able to eat or sleep
 - Feeling restless
 - Daydreaming/**obsessing** about the loved one
 - Perceiving colours as being more **vivid**
 - Going through '**withdrawal**' when not with the loved one (**craving** their presence, feeling **low** without them etc.)



- These feelings and sensations only happen in the early stages of romantic love (about the first **six months** of the relationship)
 - Once the couple have got used to each other, their relationship settles down into a more stable state
- Fisher argues that early romantic love brings with it excess dopamine neurotransmission and this is what produces the feelings of euphoria

Research support for the role of dopamine in romantic love

Fisher et al. (2005)

Aim:

- To investigate a possible link between **dopaminergic brain regions**/systems and the early stages of romantic love.

Participants:

- A **self-selected** sample of 10 female and 7 male students from New York State University, aged 18–26 years old (mean age = 20 years)
- All participants reported that they were ‘in love’ (time spent together from a range of 1–17 months with a mean of 7 months)

Procedure:

- Participants were placed in an **fMRI** scanner and shown a photograph of their romantic partner
- This was followed by a **distraction** task
- They were then shown a ‘neutral’ photograph of an **acquaintance** with whom they had no emotional connection

Results:

- The fMRI showed that the areas of the brain most active when the photograph of the romantic partner was viewed were the right **ventral tegmental** areas in the midbrain and the right **caudate nucleus**
- These regions of the brain have been associated with **dopamine** production, which in turn has been associated with **motivation** and **reward**

Conclusion:

- People who are in the **early stages of romantic love** may access brain regions associated with **dopamine release** when in the presence (physical or virtual) of their romantic partner
- Therefore, it could be said that people become ‘**addicted to love**’

Evaluation of the role of dopamine in romantic relationships



Strengths

- The findings of the above study support previous research into the role of dopamine in **substance** addiction so it is interesting to see how romantic love may fall under the same framework of **craving** and **withdrawal**
- The fMRI showed activity in the dopaminergic areas of the brain only when the photograph of the romantic partner was shown, which increases the **internal validity** of the study

Limitations

- It could be argued that a sample with a mean age of 20 years are more likely to be socially active and involved in pleasure-focused activities than an older sample, which would mean that the '**pleasure centre**' of their brains would be more receptive to dopamine
- There could be other explanations for the activation of the dopamine-rich areas of the brain being active during the fMRI
 - E.g., **excitement** at taking part in a study, curiosity as to the outcome of the study, nerves

Link to concepts

Perspective

- Fisher's study is an example of biological reductionism, as it claims that the complex, **multi-layered, subjective** experience of being in love can all be attributed to the work of one neurotransmitter
- Romantic love does not just manifest at the biological level but at the **cognitive and sociocultural** levels
 - E.g., shared **worldview**, shared hobbies, compatible **personalities**, familiarity with each other, etc.
- Biological reductionism does not account for the context in which behaviours such as romantic love occur; in effect, it takes the human out of human relationships

Change

- Romantic love – even in its early stages – may be subject to change and **fluctuation**
- Fisher's study assumes that the experience is **universal** and that dopamine plays a key role in cementing the relationship via a heady dose of brain chemistry
- People, however, (to quote a song by The Doors) are strange and may not stick to 'the plan', as it were
 - They may ignore their feelings and not pursue the relationship; they may cheat on the person they are in love with; they may decide to take a job hundreds of miles away, putting the relationship in jeopardy.
 - These are examples of cognitive dissonance – knowing that you love someone but choosing to potentially sabotage the relationship anyway



The matching hypothesis

- The matching hypothesis proposes that people tend to choose partners who are of a similar level of physical attractiveness to themselves (Walster, 1966)

Cognitive mechanism

- It is a **cognitive process** involving self-assessment and the assessment of others based on physical appearance.
 - For example, someone who rates themselves as moderately attractive may look for a partner they consider to be at a similar level

Self-worth & social status

- If a partner is perceived as **less attractive**, this may reduce an individual's social status.
- If a partner is perceived as **more attractive**, this may increase social status.
- These outcomes can influence how individuals evaluate themselves in terms of **worthiness** or **desirability**

Decision-making & risks

- There is a fine **balancing act** involved in the matching hypothesis
 - Individuals weigh the risk of pursuing partners they perceive as more attractive than themselves
 - Aiming higher carries a greater risk of rejection
 - Choosing partners considered less attractive may reduce rejection risk but may not be fully satisfying
- Repeated rejection can negatively affect self-esteem
- Over time, individuals often adjust their expectations towards partners they believe are realistically attainable

Research which supports the matching hypothesis

Taylor et al. (2011)

Aim

- To investigate the **matching hypothesis** using real-life online dating behaviour

Participants

- 60 **heterosexual** male and 60 heterosexual female profiles from an **online dating site**
- The profiles were chosen **at random**



- All participants were identified as '**initiators**', meaning that they initiated contact with other users

Procedure

- Researchers tracked the **real-life online activity** of the initiators
- Records were kept of who responded (**reciprocating contacts**) and who did not (**non-reciprocating contacts**)
- Up to six profile photographs were collected for each initiator, as well as for their reciprocating and non-reciprocating contacts
- In total, **966 photographs** were collected (527 female, 439 male)
- Independent ('blind') researchers rated all photographs using a **7-point attractiveness scale** (-3 to +3)
- Calculations were based on:
 - the **mean attractiveness rating** of each initiator
 - the mean rating of all contacts chosen by each initiator
 - separate ratings for **reciprocating vs non-reciprocating** contacts

Results

- The findings **did not support the matching hypothesis**:
 - The initiators' physical attractiveness showed **no correlation** with the mean attractiveness of the people they contacted
 - Initiators consistently contacted people rated as **more attractive than themselves**
- This pattern demonstrates **cognitive dissonance** (holding two contradictory ideas: '*I am less attractive than they are, but I am choosing them anyway*')

Conclusion:

- The study suggests that the **matching hypothesis** cannot fully account for **real-life attraction and partner choice** in online dating contexts

Evaluation of the matching hypothesis

Strengths

- Equally-attractive couples do exist in the real world, which lends **anecdotal evidence** to the theory
- The theory highlights the ways in which **cognitions** may determine partner preference and aligns with humans' ability to engage in **higher-level thinking**

Limitations

- Taylor's sample size is small which means that the data is likely to lack **robustness**
 - This in turn decreases the **reliability** of the findings



Your notes

- The theory is highly **simplistic** and **reductionist** as it attempts to **quantify** the **complex** nature of human attraction to a basic balancing act, e.g., 'I am a 5 so I seek a 5'

Link to concepts

Causality

- Notions of 'what is attractive?' are highly **subjective** and prone to **individual differences**, which means that the theory lacks scientific validity
- Attraction does not lend itself easily to experimental/scientific testing and is probably best suited to **qualitative** research

Responsibility

- Research which focuses on the physical attractiveness of people should be treated with **delicacy and care** by researchers
- If participants are aware of how they have been rated, this could cause them some **embarrassment or distress** (if the rating is lower than they expected)
- There is also the issue of **anonymity** to consider
 - It would have been vital for Taylor and colleagues to ensure that the photos of online dating site users were not published nor any clue given as to whose photos had been used in the research



Self-disclosure

- **Self-disclosure** is the act of **revealing personal information** about the self to another person
- It plays an important role in attraction and relationship development

Factors influencing self-disclosure

- The nature of self-disclosure and how much is revealed will depend on a number of **factors**:
 - **Recipient**: the person to whom the details are disclosed, e.g., a romantic partner
 - The **stage** of the relationship:
 - in the first few weeks disclosure is limited
 - after several months disclosure becomes deeper
 - after several years, disclosure continues, contributing to relationship maintenance
 - **Person disclosing**: individual characteristics affect what and how much is revealed
 - **Nature of information**:
 - Superficial details: e.g., 'I went to St Freud's school'
 - Sensitive details: e.g., 'I have spent time in prison'
 - **Reasons for disclosure**:
 - To build **trust and intimacy**.
 - To encourage **reciprocity**, i.e., the partner sharing in return
- Self-disclosure is **not fixed**; it varies with age, relationship status, profession, mood, and context

Social penetration theory

- **Social penetration theory (SPT)**, suggested by **Altman & Taylor (1973)**, describes self-disclosure as a **gradual process**, starting shallow and moving deeper
- Relationship development is like peeling back layers of an onion: as layers are removed, intimacy increases

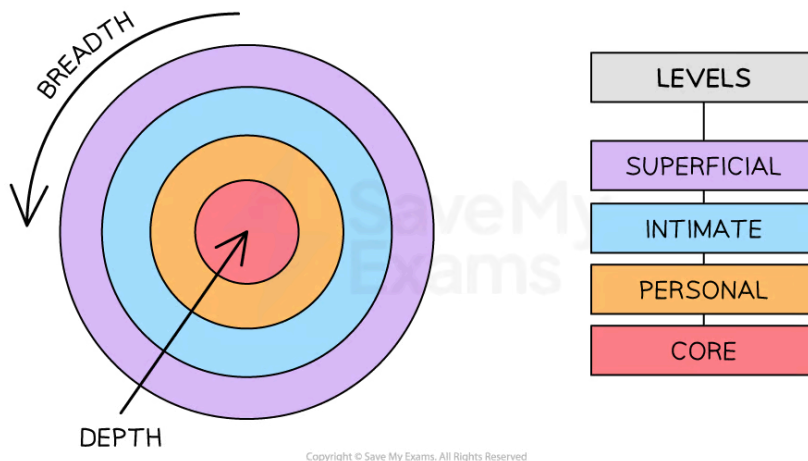


Figure 1: Social Penetration Theory

- **Levels of disclosure:**
 - **Superficial:** facts like where someone lives, their job, and hobbies (breadth, little depth)
 - **Intimate:** ambitions, past relationships, family conflicts
 - **Personal:** hopes, desires, mistakes, insecurities
 - **Core:** deeply private issues (fears, guilt, secrets that risk rejection)
- As disclosure deepens, the relationship becomes **stronger and more intimate**

Self-disclosure & romantic relationships

- Self-disclosure may be one of the most important ways of **establishing and maintaining** a romantic relationship because:
 - self-disclosing involves **trust**
 - self-disclosure increases liking, which in turn can lead to intimacy
 - without self-disclosure, the relationship would stagnate at a superficial level

Research which supports self-disclosure & relationships

Collins & Miller (1994)

Aim:

- To investigate the link between **self-disclosure** and **liking** in the **maintenance** of relationships

Procedure:

- A **meta-analysis** of research in the field of self-disclosure



- Studies were selected from range of journal articles published between 1955 and 1992, isolating the **key terms** linked to self-disclosure and liking
- Studies from a variety of academic textbooks were also included in the sample
- A **statistical programme** was used to calculate the **effect size** in studies of self-disclosure in relationships.
- Studies in the meta-analysis included **lab experiments** through to **self-reports**

Results:

- Liking appeared to be **associated** with self-disclosure (seen via **positive correlations** and large effect sizes)
- The effect was particularly strong in self-report studies (**questionnaires**)
- **Intimacy** was also linked to liking:
 - people will disclose more to those to whom they already feel close and the very act of disclosing increases liking

Conclusion:

- Self-disclosure plays an important role in the maintenance of relationships

Evaluation of self-disclosure & relationships

Strengths

- Research into self-disclosure has good **application**
 - It could be used to inform relationship **counselling**
- The mechanisms of self-disclosure apply to many different types of relationships
 - E.g., friendships, work relationships, family
 - This means that there is good **external validity** to the idea that self-disclosure is a key factor in establishing and maintaining relationships

Limitations

- There is a lack of **ecological validity** with self-disclosure research such as the above study:
 - A meta-analysis is a 'cold' and detached statistical measure which cannot reveal why and how self-disclosure takes place, only that it does
- Self-disclosure is a difficult **variable** to measure, as it is highly **subjective** and prone to change

Link to concepts

Measurement

- The above study uses a meta-analysis which involves triangulation of method and data



Your notes

- This means that the findings from one study can be viewed in the light of the findings from other studies
- Using triangulation in this way increases the internal validity and the **reliability** of the findings, as one finding checks the other findings (truth and consistency)
- Meta-analyses use **secondary data** which offers fewer opportunities to **confound** the results at source, as the researcher analyses the findings of existing studies
 - Secondary data, however, is less **secure** than **primary data**
 - The researchers are at the mercy of the original researchers' procedures, over which they have no control, potentially affecting the **reliability** of the findings

Bias

- Self-disclosure in relationships may not align with the values of **collectivist cultures**, as such cultures emphasise the group over the individual
- Collectivist cultures may not feel comfortable with the idea that one 'peels away' layers of the self to reveal the most personal and intimate information to their partner
 - Engaging in such behaviour may actually damage the relationship
 - More emic research should be conducted in this field so that no universal conclusions (culture bias) are made about the role of self-disclosure in relationships



Social exchange theory

- Social Exchange Theory is considered an **economic theory of relationships**, as it uses the language of banking, investment, and finance to explain how relationships function
- The theory was proposed by **Thibault and Kelley (1959)** to explain how individuals assess the **costs and benefits** of their relationships

Mechanism of exchange

- For a relationship to thrive, each partner must feel **rewarded** and experience a sense of profit
- Couples **negotiate the terms of exchange**, either directly through communication or indirectly through experience and learning
 - E.g., Bertie learns that he should always compliment Betty on her cooking, which benefits her and strengthens their bond

Implications for relationships

- By continually **balancing and negotiating costs and benefits**, couples can maintain relationships that feel **fair and equitable**.
- When partners perceive the exchange as just, the relationship is more likely to be stable and satisfying.

SET & romantic relationships

- SET operates along the **minimax principle**
 - The idea that people in relationships will aim to **minimise their losses** and **maximise their profits** as would a business (profits equal **rewards minus costs**)
- Rewards, costs and losses are entirely **subjective** and will differ per relationship
 - E.g., Betty enjoys feeling rewarded when her cooking is praised, but Bertie does not consider this to be important
- Relationships require certain **sacrifices**, which **offset** the rewards (and in the long run may contribute to building a more **rewarding** relationship)
 - E.g., foregoing nights out at the pub for a quiet night in, living in a town instead of the countryside, putting up with each other's family etc.
- Costs can, however, **destabilise** a relationship if they lead to arguments, **conflict**, resentment, etc., so a **fine balance** is required
 - This may take time to achieve and is only achievable via hard work and much **compromise** on both sides

Research which supports SET & relationships

Utne et al. (1984)

Aim:

- To investigate the level of **satisfaction** felt by married couples in terms of how equitable each partner felt their relationship was

Participants:

- 118 married couples from the USA
- The couples ranged in age from 16–45 years (mean age = 26 years for males; 24 years for females)
- Most of the couples had dated seriously for over two years before marrying
- 74% of the couples had been married for just four months or less

Procedure:

- **Interviews** were conducted with each husband and wife being interviewed separately
- The researchers asked each partner questions on a range of topics, including:
 - the history of the relationship
 - **perceived** equity/inequity within the relationship
 - satisfaction with the marriage
 - the perceived **stability** of the marriage

Results:

- The couples in equitable relationships expressed the highest levels of **contentment** and satisfaction with the relationship
- Partners who felt that their benefits outweighed their costs (i.e., inequity in the relationship) felt uneasy and guilty about this imbalance

Conclusion:

- The most successful relationships appear to be those in which each partner feels that costs and benefits are divided fairly and equitably.

Evaluation of social exchange theory & relationships

Strengths

- Some research has found that **couples therapy** which includes the increase of rewards and reduction in costs, has a hugely beneficial effect on the couples' joint satisfaction and happiness in the relationship
- There is some **real-world application** to SET, as common sense would tell us that relationships are bound to be judged according to whether or not the costs outweigh the rewards (and vice versa)

Limitations



- One of the major difficulties in attempting to measure SET is that rewards, costs and profit are **subjective variables** that will differ from person to person, making it difficult to **operationalise** research
 - This limits the **reliability** of the theory
- Humans are **complex** and often **unpredictable**, so attempting to apply an **artificial construct** drawn from economics to relationships is fraught with difficulty
 - Thus, there is a lack of **ecological validity** to both the theory itself and the research involved in SET

Link to concepts

Change

- SET research tends to capture a moment in a couple's relationship rather than tracking their level of satisfaction across time
- If research in this field is to have **validity**, it should be longitudinal, as relationships are not **fixed and stable**; they are prone to change and **fluctuation** for any number of reasons (financial, personal, practical)
- The couples in Utne's research were all newlyweds who had not had time to develop resentments or complaints about the perceived equity of their relationship
 - A follow-up study would have been a useful addition to this research

Bias

- Asking a couple about the state of their relationship is fraught with potential sources of **bias**
 - Participants may wish to present their relationship in the best possible light (**social desirability bias**) or they may remember episodes from their relationship through a distorted lens (**recall bias/hindsight bias**)
 - It is also possible that some participants might report positive feelings about their partner while at the same time thinking negative thoughts about them (**cognitive dissonance**)