

## RESEARCH

### Byrne (1961)—similarity-attraction hypothesis

#### Essential understanding

★ According to this hypothesis, perceived similarity is a predictor of attraction. It claims that we are attracted to others when they somehow resemble ourselves (for example, in appearance, personal background, personality, values and attitudes).

#### Aim

To investigate the relationship between interpersonal attraction and attitude similarity.

#### Method and procedure

Researchers asked participants to rank a number of issues on their importance (from most important to least important). Examples included a range of issues from God and premarital sex to Western movies. Two weeks later they were shown an anonymous questionnaire from another student. In fact, the questionnaire was faked so that responses were one of the following:

- identical to that of the participant on all issues

- opposite to that of the participant on all issues
- similar on important issues and dissimilar on unimportant ones
- similar on unimportant issues and dissimilar on important ones.

Participants were asked to indicate their feelings towards the stranger and rate this person on such characteristics as intelligence and morality.

#### Results

- Participants provided more positive ratings towards the stranger when their attitudes were similar.
- Similarity in important attitudes was more closely associated with positive ratings than similarity in less important attitudes.

#### Conclusion

Perceived similarity of attitudes indeed increases interpersonal attraction.

## RESEARCH

### Walster et al, 1966—the matching hypothesis: Hatfield

#### Essential understanding

★ The matching hypothesis was first proposed by Elaine Hatfield (formerly known as Elaine Walster). It states that people are more likely to form a relationship with someone who is equally socially desirable.

#### Aim

To investigate whether people are more likely to date someone of a similar level of physical attractiveness.

#### Participants

376 men and 376 women (freshmen).

#### Method and procedure

Participants were randomly paired with one another at a "Computer Dance"—they were told that if they provided

some information about their interests and personalities, the computer would match them with a date. As they were purchasing tickets for the dance, four confederates secretly rated their physical attractiveness. After that the participants filled out a set of questionnaires.

Two days after completing questionnaires, participants were randomly assigned to a date. When they got to know their date's name, they were told to meet their date at the dance.

Participants' attitudes toward their dates were assessed during the intermission. Several weeks after the dance participants were also contacted to find out if they actually started to date their partner "in real life".

#### Results

Some observations that supported the matching hypothesis. Since partners were randomly assigned, we can assume that attractive and less attractive participants were assigned on average to partners of similar attractiveness. Data showed that attractive individuals were harsher in their standards and rated their dates as less attractive. They also expressed less desire to date their partner again.

However, other observations did not support the hypothesis. Participants' own attractiveness did not influence their desire (and attempts) to date more attractive partners. If the partner was attractive, participants would try to date him or her irrespective of how attractive they were themselves.

#### Conclusion

The matching hypothesis was not supported in this study. Participants sought relationships with the most attractive dates, not the ones that were similar to them in the level of attractiveness.

#### Notes

- The measure of physical attractiveness in this study is not highly reliable: raters saw the participant only for a few seconds as they were standing in line.
- Desirability of the partner was reduced to physical attractiveness for the purposes of this research.
- Findings could be limited to large group situations where young people are in very brief contact with one another.

## SOCIAL FACTORS IN THE FORMATION OF RELATIONSHIPS

Formation of relationships is essentially a social phenomenon, so it is not surprising that various social factors influence it.

- **Proximity** is one such factor. Being close to each other in physical space means increased chances of meeting

each other (mere exposure effect) and therefore familiarity. Familiarity may lead to better liking. In this way what starts as a social factor becomes cognitive.

- **Social proof:** we may be more attracted to people who we perceive to be more well-accepted in society.

## SOCIAL EXPLANATIONS: PROXIMITY

### Essential understanding

- ★ *Proximity increases likelihood of friendship*

**Festinger, Schachter and Back (1950)** studied residents of a large apartment complex (Westgate West). Residents did not choose where to live—they were assigned apartments as they became available. All residents were asked to indicate which people from the same apartment complex they were friends with. Results showed that proximity (literally the distance from door to door) was related to establishing friendship:

- 41% of residents who lived next door to each other indicated that they were friends

- 22% of those who lived two doors apart were friends
- only 10% of residents who lived on opposite ends of the hall were friends.

Proximity effect may have several potential explanations.

- Friendship may be induced by simple courtesy norms: you run into each other, so you must engage in some sort of polite interaction.
- Friendship may be the result of the expectation of future interactions: you will keep running into each other, so for things not to be awkward you need to establish a friendly relationship.

## RESEARCH

### Jones *et al* (2007)—social proof

### Essential understanding

- ★ *Mate preferences may be socially transmitted. Women rate men as more desirable when the men are shown surrounded by women, as opposed to when they are shown alone or surrounded by other men.*

### Procedure

Female participants in the study were shown pairs of male faces and asked to rate their attractiveness. Later they were shown the same pairs of faces again, but this time one picture in each pair had a female face at the side. The female face was shown staring at the man's face with either a smile or a neutral expression.

Participants were then asked to rate the attractiveness of the faces again.

### Results

- The second round of ratings did not change for the faces that were not accompanied by a female face staring at it.
- Ratings in the second round were higher for the pictures that had a smiling woman staring at the male face.
- Ratings were lower for pictures where the woman was staring at the man's face with a neutral expression.

### Conclusion

Researchers conclude that when forming attraction women may use social clues and mimic the attitude of other women to men.



**Figure 6.1** Photographs used in the experiment

Jones *et al* (2007)

## THEORY

### Altman and Taylor (1973)—social penetration theory

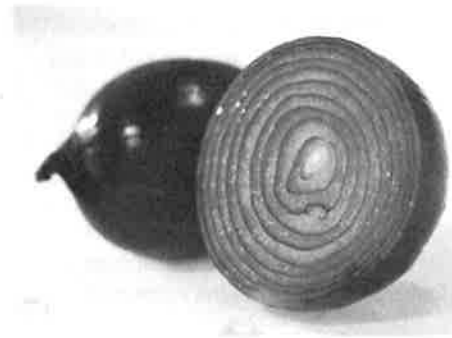
Social penetration theory proposed by Altman and Taylor (1973) claims that individuals in a relationship move from a shallow level of communication to a more intimate level. Intimacy is characterized by greater self-disclosure: individuals start sharing their deep emotions and concerns with each other.

The act of **self-disclosure** has been shown to have a range of effects (Collins et al 1994).

- People disclose more to those they initially like.
- When you disclose to another person, that person tends to like you more.
- When you disclose to another person, you tend to start liking that person more.

In other words, the act of self-disclosure produces increased liking in both actors in the process. Since this is so, self-disclosure may be an important component of communication that is responsible for maintaining relationships.

**The onion metaphor** is sometimes used to illustrate social penetration theory. In this metaphor, as interpersonal relationships develop, layer after layer of an individual's personality is peeled off, moving from the layer of superficial social self to the layer of the personal core ("the real me").



**Figure 6.2** Layers of an onion are similar to the layers of a person's personality

## RESEARCH

### Sheldon (2009)—self-disclosure on Facebook

#### Essential understanding

★ *Social penetration theory can explain communication patterns among Facebook users.*

#### Aim

To investigate self-disclosure, social attraction, predictability and trust as predictors of Facebook relationships.

#### Participants

243 undergraduate students (average age 20).

#### Method and procedure

Participants were given a set of questionnaires. When answering questions about interactions with another individual online, they were instructed to base their responses on one concrete individual, the person they talked to the most on Facebook.

#### Results

- The perception of attraction drives self-disclosure, especially the number of topics discussed with the person on Facebook.
- Increased disclosure was associated with higher predictability (less uncertainty) about the person, which

in turn was associated with greater trust. This supports the so-called uncertainty reduction theory: the more people talk with each other, the less uncertainty they experience and they are able to like each other more.

#### Conclusion

Researchers conclude that in online communication between Facebook friends people initially disclose to those they like. This disclosure leads to being more certain about the friend's behaviour (predictability). Predictability increases trust, trust increases likelihood of self-disclosure, and self-disclosure increases liking, which completes the circle.

## RESEARCH

### Stratton (2003)—attributional style in families that attended family therapy

#### Essential understanding

★ *Distress in family relationships may be associated with negative attributional styles, especially towards the children.*

#### Aim

To observe attributional styles in troubled families that sought therapeutic help.

#### Method

A qualitative research study—observation and content analysis of transcripts.

#### Participants

Stratton (2003) analysed films of family therapy sessions from eight families with either step-parents or adoptive parents. All of the children in the household and both the parents attended the recorded sessions.

#### Procedure

All interactions observed in the recordings were coded using a comprehensive checklist for coding attributional behaviours. The total number of attributions analysed was 1,799, with around 4 attributions per minute per family (that is how common they are, at least in a family therapy situation).

#### Results

- Parents often used attributions which implied that their children cause bad outcomes.
- All of the parents in these families made more dispositional attributions for their children than themselves (for example, when children do something wrong it is because they want to, but when parents do something wrong it is because they are forced to by the situation).
- Negative behaviours of children were described as controllable more often than negative behaviours of parents.

#### Conclusion

Researchers concluded that for these troubled families (we assume they were troubled because they sought therapeutic help) the attributional style was consistent with “blaming the children”—describing the children as causing negative outcomes and the parents as being affected by these outcomes. This shows how distress in family relationships is associated with negative (blaming) attributions.

## RESEARCH

### LeFebvre, Blackburn and Brody (2014)—relationship dissolution on Facebook

#### Essential understanding

★ *Online break-up behaviours broadly follow Rollie and Duck's (2006) stages.*

#### Aim

To apply Rollie and Duck's (2006) relationship dissolution model to investigate how Facebook users behave online both during and after a break-up.

#### Participants

226 college students.

#### Method and procedure

Participants completed an online survey that asked open-ended questions about a romantic relationship that had ended within the past two years. They rated the seriousness of that relationship, the frequency of face-to-face and online communication with the partner, reported on online communication with the partner and behaviours that occurred both during and after the break-up.

Inductive content analysis was used to analyse data.

#### Results

Researchers identified the most common online behaviours both during and after the break-up.

- **During relationship dissolution:** participants minimized their Facebook activity; cleared away the presence of their partner by removing their Facebook relationship status, untagging or deleting wall postings and pictures, and hiding other public displays of affection; observed online actions of their partners (that is, engaged in “stalking”).
- **After relationship dissolution:** participants continued getting rid of the unwanted remains such as previous wall postings or other visible connections to their ex-partner. Some participants defriended, deleted or blocked Facebook access to their ex-partner and some of the associated social network. Impression management behaviours also became prominent. These included positive online self-presentation. Many behaviours were aimed to evoke jealousy or regret from previous partners.

#### Conclusion

Researchers claim that the results of this study support Rollie and Duck's (2006) model of relationship dissolution, especially the last three stages: the social stage, grave dressing and resurrection.

## RESEARCH

### Flora and Segrin (2003)—relational history and satisfaction

#### Essential understanding

★ *Diverse experiences in relational history are necessary to maintain a relationship.*

#### Aim

To examine how perceptions of relational history predicted relational well-being in dating and married couples.

#### Participants

65 married couples and 66 dating couples, at least 20 years old and native speakers of English.

#### Method and procedure

- Measurements of relationship well-being (satisfaction and stability) were taken twice with a six-month interval.
- A semi-structured interview (oral history) was used where participants answered a set of open-ended questions in a story-like fashion while their partner was present in the same room. A coding scheme was used later to assess the interview transcripts against a set of scales such as fondness, affection and negativity toward the spouse, among others.

- In addition, relationship development was assessed through relationship development breadth—a questionnaire completed by the participants alone. Relationship development breadth is the extent to which partners have experienced specific behaviours (such as becoming sexually intimate), cognitions (such as thinking that the partner was the right person for them) and affect (such as feeling a deep emotional connection) in the course of the relationship. The more behaviours, cognitions and emotional reactions you experienced in the course of a relationship, the “broader” your relationship development has been.

#### Results

Break-up and lower satisfaction at time 2 (six months after the start of the study) were related to little relational development breadth and negative oral history appraisals.

#### Conclusion

Researchers concluded that a variety of behavioural, cognitive and affective experiences are necessary for long-lasting relationships.

#### Evaluation of research

Research in the area of relationship dissolution has been criticized in terms of methodological quality and ethical considerations.

- Research in this area typically relies on retrospective self-report measures that are open to a variety of biases

such as social desirability or effects of reconstructive memory.

- Such studies require participants to recreate hurtful episodes in their memory that can cause some level of psychological harm.

## THEORY

### Behavioural game theory

In contemporary psychology cooperation and competition between individuals and groups is often studied as part of behavioural game theory.

Game theory is a mathematical approach to modelling the interaction of two or more rational "agents" (decision-makers). Being rational means that each of the agents chooses the course of action that maximizes its expected utility. The actions of one agent depend on the actions of the other agent or agents, which makes game theory suitable for describing many social processes such as bargaining,

stock market exchange and warfare. Game theory has found many applications in economics, business, marketing, political sciences and other areas.

**Behavioural game theory** looks at how people actually behave in typical interaction situations. Human behaviour is not always completely rational and therefore does not always coincide with the predictions of mathematical game theory. However, these deviations from rationality themselves may be predictable. In the words of Dan Ariely, we are "predictably irrational".

## RESEARCH

### Burton-Chellew, Ross-Gillespie and West (2010)—competition causes cooperation

#### Essential understanding

★ *Cooperation between humans may actually be the result of competition between groups.*

#### Aim

To study behaviour in a public goods game with an added competitive incentive for combined group performance.

#### Method

Experiment, independent measures design.

#### Procedure

A situation was modelled where groups competed with other groups for financial rewards (a so-called public goods game).

The sample was randomly divided into groups of four, and each group played a public goods game among themselves.

In the game each participant received an endowment of 20 monetary units (MU). They could then contribute any fraction of this sum (0–20 MU) to a group investment. They kept any MU they did not contribute. MU contributed for the investment were multiplied by two and evenly divided between the four participants, so investment was beneficial

for the group (a return of two MU for each one contributed), but costly for the individual (a return of 0.5 MU for each one contributed).

In the no-competition (control) group there were no other conditions.

In the competition (experimental) group participants were also given a chance to earn additional MU depending on the combined performance of their group. Groups were ranked according to the sum total of their contributions, and participants of the highest-ranking group each received an additional 16 MU.

#### Results

The presence of group competition resulted in participants repeatedly contributing more to the public fund. Importantly, results showed that collaborating more did not lead to higher individual rewards, but people increased collaboration anyway when group competition was introduced.

#### Conclusion

Researchers conclude that higher levels of cooperation within the group are caused by competition between groups.

## RESEARCH

### Biological correlates of intergroup conflict

#### Essential understanding

★ *Cooperative behaviour and intergroup conflict in humans have been linked to biological variables.*

**De Dreu et al (2012)**, in a modified version of the prisoner's dilemma game, found that after taking a dose of oxytocin participants were more likely to pre-emptively compete with other groups out of fear that others will start competing first. In other words, they were more likely to engage in defence-motivated non-cooperation. This points to a role of oxytocin in increasing cooperation with the in-group and, as a side effect, increasing competition with out-groups.

**Decety et al (2004)** conducted an fMRI study where participants played a computer game either in cooperation with or in competition against another person. Distinct brain regions were found to be selectively associated with cooperation and competition:

- cooperation—orbitofrontal cortex
- competition—inferior parietal cortex and medial prefrontal cortex.

Researchers argue that this pattern reflects different mental frameworks involved in competition and cooperation: we need to process information differently depending on what we expect from others.

## Implicit prejudice

In recent years overt displays of prejudice have decreased due to the taboo that exists in developed societies. However, although people do not demonstrate prejudice explicitly, they may still be prejudiced against certain groups, sometimes even outside of their conscious awareness (that is, they may not realize that they are prejudiced). This is called implicit prejudice.

Since implicit prejudice, by definition, cannot be revealed in a self-report measure (such as a questionnaire), the challenge is to develop an instrument that will allow researchers to see prejudice even where participants themselves do not see it.

## Implicit association tests (IATs)

IATs were introduced by **Greenwald, McGhee and Schwartz (1998)**.

They are based on the idea that if a person has a strong automatic association between two mental representations, the reaction time taken to associate them will be shorter. All these tests are computer-based. For example, a test to measure implicit racial bias might include the following trials:

### Trial 1

Black/Unpleasant      White/Pleasant  
Enjoyment

### Trial 2

Black/Pleasant      White/Unpleasant  
Enjoyment

### Trial 3

Black/Unpleasant      White/Pleasant  
African American

### Trial 4

Black/Pleasant      White/Unpleasant  
African American

Participants are required to classify the target words (Enjoyment, African American) as quickly as possible either to the left category, such as Black/Pleasant (by pressing E) or to the right category, such as White/Pleasant (by pressing I).

The idea is that if a participant has an implicit racial prejudice against African Americans, they will think less in trial 3 than in trial 4. They will also take less time to react in trial 1 than in trial 2. If you have a racial prejudice against black people, it may be cognitively harder for you to process the category "Black/Pleasant", so you will take a longer time to react.

There is a great variety of IATs today. For example, a gender-science IAT requires participants to quickly group male and female photographs together with science and liberal arts words.

## RESEARCH Guilty by implicit racial bias—Levinson, Cai and Young (2010)

### ✪ Essential understanding

- *Implicit prejudice may exist where explicit prejudice does not.*
- *Implicit racial prejudice may influence decision-making in legal contexts.*

### Aim

To examine whether people hold implicit associations between African Americans and criminal guilt.

### Participants

67 undergraduate and graduate students at the University of Hawaii eligible for jury duty.

### Method and procedure

Researchers designed a "Black/White, Guilty/Not guilty" IAT.

Participants completed computer-based measures: the IAT, feeling thermometers (designed to evaluate explicit racial preferences, for example "How warm do you feel towards African Americans?") and a robbery evidence evaluation task.

The evidence evaluation task presented participants with a story of an armed robbery. After this they saw a series of crime scene photographs (pieces of evidence) and were primed with a picture of either a dark-skinned or a light-skinned perpetrator (skin colour was manipulated by software). For each piece of evidence participants then had to decide whether it indicated that the defendant was guilty or not guilty.

### Results

It was found that participants held strong implicit associations between "Black" and "Guilty" (compared to between "White" and "Guilty").

Interestingly, scores on the IAT negatively correlated with scores on the feeling thermometer: participants who reported feeling warmly towards African Americans were also more likely to show an implicit "Guilty" bias against them.

These implicit associations predicted the way mock jurors evaluated evidence. Stronger implicit associations between "Black" and "Guilty" were linked to judgments of ambiguous evidence as more indicative of guilt.

### Conclusion

Implicit attitudes of race and guilt may be different from explicit attitudes (found in self-report measures). At the same time, implicit associations between race and guilt may influence legal decision-making.

### Implications

The authors claim that the findings have large implications in terms of compromising the legal principle of presumption of innocence: if not proven otherwise, people are assumed to be innocent. However, if implicit biases exist in this area, the principle that is postulated on paper may be compromised in practice.

## RESEARCH Implicit prejudice and the Obama effect—Columb and Plant (2011)

### ✪ Essential understanding

- ✪ *Positive exemplars from social groups can decrease implicit prejudice towards these groups.*

### Background

Barack Obama was the first black person to be elected as President of the United States.

### Aim

To investigate if exposure to Obama can cause a decrease in implicit anti-black prejudice.

### Method

Experiment, independent measures design.

### Participants

51 non-black undergraduate psychology students.

### Procedure

Participants performed a task where they had to decide whether a string of letters was a word or a non-word. They performed 2 sets of 24 trials. Before each trial they were primed with a name or a string of Xs. "Primed" means that the name was flashed on the screen for 55 ms. The names were either negative exemplars of black people, that is, people who were perceived negatively by the majority of participants at the time of the study (such as OJ Simpson), or the positive exemplar (Obama).

Participants were randomly assigned into one of three conditions.

- Negative: participants in this condition were primed with negative exemplars on the first set of trials and Xs on the second set of trials.
- Negative then Obama: participants were primed with negative exemplars on the first set of trials and "Obama" on the second set of trials.
- Control: participants were primed with Xs on both sets of trials.

After completing this procedure, all participants were given the Black/White implicit association test (IAT). This measured their implicit anti-black prejudice. A measure of explicit prejudice (a questionnaire) was also administered.

### Results

Participants in the Obama condition demonstrated significantly less implicit prejudice than participants in the negative condition. There was no difference between the Obama condition and the control condition. Explicit prejudice (measured by the questionnaire) was not affected by this experimental manipulation.

### Conclusion

Exposure to Obama "undid" the harmful effect of negative exemplars on implicit racial prejudice. Positive counter-stereotypic exemplars (such as Barack Obama) can decrease implicit anti-black prejudice.



## RESEARCH Savelkoul et al (2011)— out-group size and intergroup prejudice

### Essential understanding

★ *Anti-immigrant prejudice is mediated by the relative size of the out-group.*

### Background

One approach to explain anti-Muslim attitudes builds on realistic conflict theory (RCT) and suggests that the actual competition for resources between majority and minority groups induces negative attitudes and hostility towards the out-group.

Another approach is the intergroup contact theory which suggests that intergroup contact will reduce negative contact and hostility.

These are opposing explanations: one of them predicts that increased intergroup contact (through increased competition over resources) will increase prejudice; the other suggests that intergroup contact (through developing friendship) will decrease prejudice.

### Aim

To investigate the effect of the relative out-group size on anti-Muslim attitudes.

### Method

The researchers used unique data of the percentage of Muslims in geographical regions in the Netherlands. This was coupled with a national survey of anti-Muslim attitudes and perceived threat (1,375 participants). They used advanced statistical techniques to analyse this data.

### Results

It was found that a larger out-group in a geographical region increases people's level of perceived stress in that region, which in turn **induces** anti-Muslim attitudes.

At the same time (a contradictory result) it was found that a larger out-group in a geographical region increases the likelihood that people will have friends and colleagues belonging to ethnic minority groups, which in turn **reduces** perceived threat and anti-Muslim attitudes.

A finding that reconciles these two results is the **curvilinear relationship** between out-group size and the level of perceived threat. For relatively small out-groups, an increase of the out-group size is associated with an increase in the level of perceived stress. However, as the out-group gets bigger, contact effects counteract these tendencies. At some point the direction of this relationship is reversed: the bigger the out-group, the more positive people's attitude towards it.

### Conclusion

Prejudice towards immigrants may be mediated by perceived threat and the relative out-group size. Relatively small out-groups cause members of the majority to perceive threat, which leads to high levels of anti-immigrant prejudice (in line with RCT). However, as the out-group size increases, inevitable personal contacts with the members of the out-group reverse this tendency, and eventually anti-immigrant prejudice starts to become weaker (in line with the contact hypothesis of conflict resolution).

## RESEARCH Pettigrew and Tropp (2006)— contact hypothesis

### Essential understanding

★ *A meta-analysis supports contact theory and highlights several additional effects of contact on intergroup attitudes.*

Pettigrew and Tropp (2006) conducted a meta-analytic review of research studies that tested the contact hypothesis (over 500 studies).

### Results

- Intergroup contact that met Allport's four conditions was shown to produce significantly reduced intergroup bias.
- At the same time, these conditions are not necessary for the reduction of intergroup conflict: a small result is produced even when they are not met.
- They reported a significant negative correlation between contact and prejudice:  $r = -0.22$ ,  $p < 0.0001$ . A correlation of this size is comparable to the relationship

between condom use and sexually transmitted HIV, and between passive smoking and the incidence of lung cancer (Al Ramiah, Hewstone 2013).

- Effects of intergroup contact generalize across situations. For example, contact with out-group members at work is associated with reduced prejudice towards members of the same out-group in one's neighbourhood.
- Contact with one out-group (for example, blacks) is associated with reduced prejudice towards secondary out-groups (for example, homosexuals, immigrants).

### Note

Almost all the studies in this area are based on self-report measures of attitude change rather than behavioural criteria. However, many studies validate these self-reports with ratings from participants' close friends.

## RESEARCH

### Bruneau and Saxe (2012)—perspective-taking and perspective-giving

#### ✪ Essential understanding

- *Members of the dominant group, unlike members of the non-dominant group, benefit from perspective-taking (it results in a positive change in the attitude towards the out-group).*
- *Members of the non-dominant group, unlike members of the dominant group, benefit from perspective-giving (expressing oneself and being heard).*

#### Aim

To examine the conditions under which a brief dialogue-based intervention could improve intergroup attitudes.

#### Participants

47 white Americans and 76 Mexican immigrants, mean age 33 in both groups.

#### Method and procedure

Participants were randomly assigned to one of two groups: senders and responders. The role of the sender was to write about a difficult problem faced by people from their ethnic group and then send this short essay to the responder. The role of the responder was to translate the essay using Google Translate, write a summary of the translated essay in their own words and send it back to the sender. This message was again translated. Participants thought they were assessing the effectiveness of the online translation tool.

For the responders, describing a difficulty or challenge faced by the members of the out-group in their own words is perspective-taking. For the senders, describing their problem and then reading its restatement in someone else's words is perspective-giving. Importantly, they experience "being heard" by the responder.

Interactions were conducted over a live video interface (Skype). Audio was disabled; participants communicated

through the text chat window. Interaction lasted 20–30 minutes. The interaction partner was a member of an out-group confederate who was acting according to a standard script.

Both before and after the interaction, participants filled out a questionnaire measuring their attitudes towards the out-group.

#### Results

Members of the dominant groups benefited more from perspective-taking (79% of participants showed a positive change in attitude towards the out-group).

Members of the non-dominant group did not benefit much from perspective-taking, but responded positively to perspective-giving (63% of participants changed their attitude to a more positive one).

#### Conclusion

Effects of contact between groups on the reduction of conflict are asymmetric and depend on group membership: members of the dominant groups respond more positively to perspective-taking, while members of the non-dominant groups respond more positively to perspective-giving (expressing themselves and being heard).

#### Notes

In a follow-up study, a similar procedure was implemented with two modifications.

- Attitudes towards the out-group were assessed both immediately and one week after the intervention.
- The participants were Palestinian and Israeli.

Results of the previous study were replicated. However, it was also shown that changes in attitudes towards the out-group were transient. One week after the intervention the attitudes returned to their original state.

## RESEARCH

### Madsen et al (2007)—support for kin selection

#### ★ Essential understanding

*Participants are willing to endure more pain when it benefits closer relatives. This pattern repeats cross-culturally.*

#### Aim

To investigate the influence of kin selection on human altruism in an experimental design, thus avoiding the influence of social desirability. In addition, the researchers tested the theory in two different cultures. This is important because cross-cultural differences are not usually compatible with an evolutionary explanation of behaviour (if the behaviour truly evolved in humans as a species, there should be few or no cultural differences).

#### Method

Experiment, repeated measures design.

#### Participants

The experiments were conducted in two intentionally different populations: students in the UK and South African Zulu. This was done to see if the same patterns of behaviour will be observed despite the cultural differences in the idea of kinship.

#### Procedure

Participants were asked to provide a list of individuals of varied genetic relatedness, for example parents, cousins

or siblings. They were then asked to adopt a painful position: sitting as though on a chair, with the back against a wall and calves and thighs at right angles. This position becomes increasingly painful with time. Participants were asked to hold it for as long as possible. The length of time a participant was able to maintain the position was then translated into a material benefit for the recipient, a person from the participant's list.

They had 5 trials with 15-minute breaks in between. In a random order, they had to maintain the difficult position for:

- themselves (co-efficient of relatedness  $r = 1$ )
- their parents or siblings ( $r = 0.5$ )
- their grandparent, aunt, uncle, niece or nephew ( $r = 0.25$ )
- their cousin ( $r = 0.125$ )
- a local charity organization ( $r = 0$ ).

Every effort was made to ensure that participants and the recipients did not live together, to avoid confounding variables. The material benefit (a payment) was sent directly to the recipient. The payment for the UK participants was 1.50 GBP for every 20 seconds the position was held. The payment for the Zulu participants consisted of food hampers of the same monetary value. All Zulu participants came from extremely poor rural communities, so food was perceived as a necessity.

#### Results

- As a general trend, the amount of time spent in the painful position increased with the co-efficient of relatedness: participants were more ready to maintain this position for themselves than their parents, more for their parents than grandparents, and so on.
- This effect of kinship was transcultural.

#### Conclusion

The study provides experimental evidence that kinship plays a role in moderating altruistic behaviour. This is not to say that kinship is the only, or even the leading, factor in determining altruism, but the study demonstrates that kinship has an influence over and above other possible factors.

## RESEARCH Batson et al (1981)—the Elaine study

### Essential understanding

★ *When empathy is activated (induced through perceived similarity), people behave unselfishly.*

### Aim

To investigate if empathy produces genuinely altruistic (unselfish) motivation to help.

### Method

Experiment, 2 × 2 experimental design.

### Participants

44 female introductory psychology students; 11 participants per group.

### Procedure

On arriving at the venue participants were told to wait for the arrival of the second subject, Elaine, who was actually a confederate. It was determined through drawing lots that one of them (always Elaine) would be performing a task under aversive conditions—electric shocks at random intervals. The job of the other one (always the real participant) was to observe Elaine.

Participants were then taken to a separate room where they observed Elaine through CCTV (actually a recording). It was evident from the first trial that Elaine was finding the shocks extremely unpleasant.

After the second trial (out of ten) they were given a chance to volunteer to help her by taking her place.

### Variables

Two **independent variables** were manipulated in the experiment.

- Cost of escaping without helping—easy escape versus difficult escape. In the difficult escape condition participants believed that if they did not take Elaine's place they would have to continue witnessing the situation. In the easy escape condition they believed they could just get up and walk away.

- Level of empathy—low versus high. This was manipulated through a values and interests questionnaire. All participants filled out this questionnaire before the experiment. Elaine's questionnaire was prepared in advance to be either very similar or very dissimilar to the participant's own responses. Elaine's questionnaire was then given to the participant as part of "impression formation", so the participant perceived Elaine as either similar or dissimilar to herself. Based on prior studies, Batson et al (1981) claim that perceived similarity increases empathy towards a person.

The **dependent variable** was whether or not the participant agreed to replace Elaine after the second trial.

### Results

The lowest proportion of participants who agreed to help was observed in the low empathy–easy escape condition. Low empathy appeared to make the motivation to help egoistic, so ease of escape reduced helping dramatically (from 64% to 18%). Conversely, under high empathy–easy escape did not have any significant effect on the probability of helping; in fact, even more participants chose to help Elaine in the easy escape condition (91% versus 82%).

Probability of taking Elaine's place		
	Low empathy	High empathy
Easy escape	18%	91%
Difficult escape	64%	82%

Table 6.2

Batson et al (1981)

### Conclusion

The motivation to help in high empathy conditions was altruistic, not egoistic. Ease of escape no longer affected participants' behaviour when the level of empathy was high, hence we can accept the empathy-altruism hypothesis and claim that genuinely altruistic behaviour in humans is caused by feelings of empathic concern.

## RESEARCH Nguyen and Parker (2018)—effectiveness of Good Samaritan law

### Essential understanding:

★ *Good Samaritan laws protect people who help others in an emergency. Such laws have been shown to be effective, for example, for reporting heroin overdose.*

### The law

Good Samaritan laws are designed to protect people who are trying to help others in an **emergency situation** but may face the possibility of failure. **If they** are not **successful**, or if the person gets hurt as a result of their trying to help, their prosocial behaviour may have negative legal consequences for them personally, and Good Samaritan laws are designed to counteract this. In some countries the law even requires punishment for bystanders if they witness an incident if the situation is not dangerous for themselves and yet they do not provide help to the victim.

Examples of Good Samaritan bills that have been endorsed can be seen in Australia, Argentina and Canada.

### Effectiveness

In the USA accidental drug overdose has been reported to be a primary cause of death, even exceeding motor vehicle deaths (Nguyen, Parker 2018). In response to this growing threat, more and more states are accepting Good Samaritan laws that provide immunity from arrest to those who witness or experience an overdose and call an emergency service. Under the law such people cannot even be charged with possession of drugs.

To assess the effectiveness of adopting such laws for the reduction of drug overdose-related deaths, **Nguyen and Parker (2018)** analysed hospital admissions data (across 270 hospitals in New York and New Jersey) before and after the **law was adopted**. **They found an overall increase** in hospital admissions for **heroin-related accidental overdose** cases, but not for non-heroin accidental overdoses. This provided support for the effectiveness of Good Samaritan laws in increasing heroin-related hospital admissions.

### Essential understanding

★ *A brief compassion training can significantly affect prosocial behaviour toward strangers in a novel situation.*

### Aim

To investigate the effects of compassion training on prosocial behaviour in adults (aged 18–35 years).

### Participants

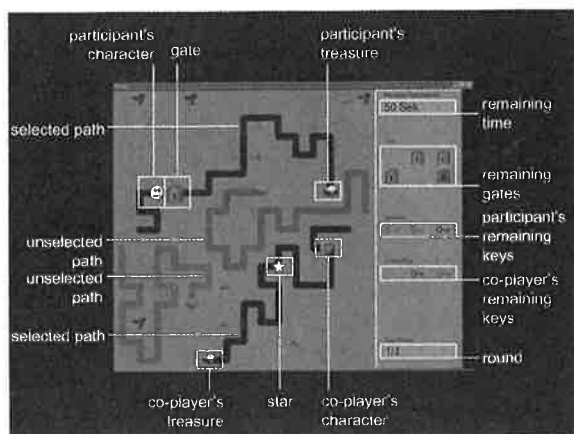
69 female volunteers from the University of Zurich recruited through advertisement.

### Method

Experiment, mixed design.

At some points during the game, red and blue gates appeared that blocked the participants' paths. Each participant had a number of red and blue keys that she could use to unlock the gates.

When the co-player ran out of keys, participants could use their own key to open the gate for the co-player. They could see how many doors of each colour were left, and how many keys of each colour they had as well as how many the co-player had.



**Figure 6.5** Screenshot from the Zurich Prosocial Game  
Leiberg, Klimecki and Singer (2011)

### Procedure

Prosocial behaviour was assessed with a novel game developed for the purposes of the study: the Zurich Prosocial Game.

In this computer-based procedure participants guided their character with mouse clicks as fast as possible through a maze. At the end of the maze there was treasure which was converted into real money.

They could also see one other player (ostensibly a person from a different university, but actually a pre-programmed algorithm) progress through another maze on the same screen. Importantly, the two mazes did not intersect in any way so theoretically it was possible to complete the game while absolutely ignoring the other player.

Participants were randomly split into two groups: one underwent compassion training while the other received memory training. In each of the groups the Zurich Prosocial Game was played twice, once before the training and again five days after it.

- The compassion group attended a one-day training session to learn a Buddhist meditation technique called Metta. The training involved sitting in an upright position and concentrating on warm and positive feelings toward oneself, a beloved person, a neutral person and, ultimately, all human beings. Participants had to imagine the person while silently repeating phrases like, "May you be happy".
- The memory training group went through a session of similar duration where they were taught the method of loci. This involved a series of locations (for example, a well-known route in Zurich) and a series of items (words) to be memorized. Participants created mental associations between the locations and the words and in this way memorized the sequences.

### Results

While there was no change in the frequency of helping observed in the Zurich Prosocial Game from pre- to post-training in the memory training group, compassion training significantly increased frequency of helping.

### Conclusion

The researchers concluded that a brief compassion training has a significant effect on prosocial behaviour. They also noted that compassion training resulted in transfer of behaviour in a novel task (a task that was unrelated to the contents of the training). It remains to be observed if effects of such (or longer) training sessions also show in everyday life behaviour.