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Social Relations Model

Kenneth D. Locke
Department of Psychology and Communication
Studies, University of Idaho, Moscow, ID, USA

Definition

In interpersonal situations, people are perceivers and actors and also targets of others' perceptions and actions. The social relations model (SRM; Kenny 1994; Kenny and La Voie 1984) is a conceptual and statistical approach for understanding and analyzing perceptions and actions (such as trusting, desiring, helping, or hurting) that occur between pairs of individuals (or *dyads*).

Introduction

Understanding interpersonal perception and action can present challenging puzzles. For example, consider a team comprised of four individuals: A, B, C, and D. If A is very trusting of B, then is that an effect of the group (in this group, everyone trusts everyone), the individual perceiver (A is an especially trusting group member), the individual target (B is an especially trustworthy group member), or the dyadic relationship (A is uniquely trusting of B in particular)? The

SRM can separate and estimate the contributions of these various pieces of the puzzle. Estimating group effects requires collecting data from multiple groups, and disentangling perceiver, target, and relationship effects requires having multiple perceivers rate multiple targets (or multiple actors interact with multiple partners) within groups. Therefore, SRM studies often use *round-robin designs* in which each group member describes or interacts with every other group member. SRM studies can also employ *block designs* in which groups are divided into subgroups and each subgroup only describes or interacts with members of other subgroups.

Note that if the dyadic phenomena under consideration are perceptions – as is the case in the "trust" example used here – then the individuals involved are typically referred to as *perceiver* and *target*. However, if the dyadic phenomena under consideration are actions (e.g., helping), then the individuals involved are typically referred to as *actor* and *partner*.

Social Relations Model Components

As noted above, one potential contributor to interpersonal perception and action are group-level effects; that is, the average (or *norm* or *base rate*) for a particular perception or action may be different in different groups. For example, some groups may be generally more trusting than other groups. Even if there is no significant variation

between groups, there is likely to be significant variation within groups. The SRM separates within-group individual differences into differences between perceivers and differences between targets.

The perceiver (or actor) effect reflects how someone perceives targets (or treats partners) *on average*. Thus, it reflects a perceiver's consistent disposition to perceive others in a particular way (e.g., to be generally wary of others). For example, if A is more trusting than the typical team member, then A's perceiver effect for trust would be positive (which could partially explain A's tendency to trust B). Variation in group members' perceiver effects is *perceiver variance*. Significant perceiver variance indicates that different perceivers have different perceptual dispositions. For example, if A and B trust all of their teammates while C and D mistrust all of their teammates, then perceiver variance is high; however, if A, B, C, and D are all equally trusting of their teammates, then perceiver variance is low. When measuring interpersonal perception, perceiver variance may be called *assimilation* because it indicates the degree to which each perceiver assimilates targets into their own distinctive schema (e.g., B believing "they're all trustworthy" and C believing "they're all untrustworthy").

The target (or partner) effect reflects how someone is perceived (or treated) *on average* by all perceivers (or actors). Thus, it reflects a target's consistent disposition to be perceived in a particular way (e.g., to be generally trusted by others). For example, if B is more trusted than the typical team member, then B's target effect for trust would be positive (which could partially explain A's tendency to trust B). Variation in group members' target effects is *target variance*. Significant target variance indicates that some targets are consensually perceived as above average or are consensually perceived as below average on the characteristic in question. For example, if everyone on the team perceives A and B as trustworthy and C and D as untrustworthy, then target variance is high; however, if each group member is trusted by some teammates but not trusted by others, then target variance is low. When measuring interpersonal perception, target variance may be called

consensus because it indicates the degree to which different perceivers share similar perceptions regarding who is above average and who is below average.

The dyadic relationship effect reflects a perceiver's unique perception of (or action toward) a target that cannot be explained by the perceiver's perceiver effect, the target's target effect, or the group mean. For example, if A trusts B more than would be expected given A's general tendency to be trusting, B's general tendency to be trusted, and the overall level of trust in the group, then A's trust of B shows a positive relationship effect (which could partially explain A's overall tendency to trust B). Variation in group members' relationship effects is *relationship variance*. Significant relationship variance indicates that perceptions or actions are to some degree unique to each unique dyad. For example, relationship variance for trust will be greater to the degree that a specific group member's trust of another specific member cannot be predicted from those members' respective perceiver and target effects.

The final SRM component is random measurement error. If a dyadic variable is only measured once, then relationship variance cannot be separated from error variance. For example, if on one measurement occasion A seems uniquely trusting of B, then that could reflect random error. Separating reliable, systematic relationship variance from unreliable, unsystematic error variance requires more than one measurement of the dyadic variable (e.g., measuring how much members trust each other during several different team meetings or using several different trust scales).

The SRM encompasses both the conceptual approach described above and the analytical procedures and formulas used to compute the proportion of variance in interpersonal perception or action that can be attributed to the perceiver, the target, and the unique dyadic relationship or error (Kenny et al. 2006). There are freely available programs specifically designed to estimate SRM effects and variances (such as SOREMO, BLOCKO, TripleR, and fSRM); however, conventional statistical programs that can fit multilevel or structural equation models can also be coaxed into estimating these SRM parameters.

If there is significant perceiver, target, and/or dyadic variance, then researchers can examine whether that variance is associated with other SRM and non-SRM variables (Back and Kenny 2010).

First, researchers can compute correlations between the SRM components of one particular variable (e.g., trust). The correlation between individuals' perceiver effects and target effects is *generalized reciprocity*. Generalized reciprocity indicates if how people generally perceive (or treat) others correlates with how others generally perceive (or treat) them. For example, if A and B are generally trusting of and trusted by others, while C and D are generally mistrustful of and mistrusted by others, then there would be positive generalized reciprocity for trust. The correlation between dyad members' relationship effects is *dyadic reciprocity*. For example, a positive dyadic reciprocity coefficient for trust suggests that if A is uniquely trusting of B and wary of C, then it is likely that B is uniquely trusting and C is unusually wary of A.

Second, researchers can compute correlations between the SRM components of two different dyadic variables (e.g., trust and helping). At the level of individuals, four types of correlations can be computed between perceiver/actor and target/partner effects: a perceiver–perceiver correlation (e.g., are trusting people more helpful?), a perceiver–target correlation (e.g., are helpful people trusted more?), a target–perceiver correlation (e.g., are trusting people helped more?), and a target–target correlation (e.g., are more trusted people helped more?). At the level of dyads, two types of correlations can be computed between the relationship effects: an *intraindividual* relationship correlation (e.g., is A uniquely trusting B related to A uniquely helping B?) and an *interindividual* relationship correlation (e.g., is A uniquely trusting B related to B uniquely helping A?).

Third, researchers can test associations between SRM variables and non-dyadic variables (such as individual or situational characteristics). For example, researchers could test if age predicts perceiver or target effects. Assessing self-perceptions of the characteristic measured in an SRM study enables researchers to compute (a) *assumed similarity* correlations between self-perceptions and perceiver effects (e.g., do people who believe they are relatively trustworthy also believe others are relatively trustworthy?) and (b) *self-other agreement* correlations between self-perceptions and target effects (e.g., are people who believe they are relatively trustworthy perceived as relatively trustworthy by others?). And assessing perceptions of others' perceptions of the self (or *meta-perceptions*) enables researchers to compute *meta-accuracy* correlations between meta-perceptions and target effects (e.g., are people who think they are perceived as relatively trustworthy actually perceived as relatively trustworthy?).

Conclusion

Although conducting and analyzing SRM studies can be challenging, by systematically separating and juxtaposing pieces of the puzzle of interpersonal perception and action, the social relations model can ask and answer questions that other conceptual and statistical approaches cannot (Back and Kenny 2010).

Cross-References

▶ Actor-Partner Interdependence Model
▶ Person Perception and Accuracy

References

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