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Can Conflict Videos Improve People's Conflict Management? An Experimental Study on Changes in Conflict-Related Attitudes and Behaviors

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Abstract

This article analyzes the effectiveness of video intervention in the management of interpersonal conflicts. In a randomized experimental study, we examined conflict-related beliefs, feelings, and behaviors. Longitudinal data were collected from an intervention group (N = 1567) and a control group (N = 636) over 15 weeks with five surveys conducted in Germany. Mixed models with repeated measures (MMRMs) revealed significant effects on conflict-related beliefs and behaviors in the intervention group. The results indicated that productive beliefs about conflict exhibited an earlier increase and a slightly larger effect size compared to productive behaviors. Additionally, negatively experienced feelings tended to decrease in the intervention group, although this change was not statistically significant. In contrast, the control group did not demonstrate any significant changes. These findings suggest that conflict videos are a promising low-threshold tool for enhancing individual conflict management.

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This study was carried out in accordance with the recommendations of the Ethics Committee of Catholic University Eichstätt-Ingolstadt, with written informed consent from all the subjects. All the subjects provided written informed consent in accordance with the APA's Ethics Standards. The protocol was approved by the Ethics Committee of Catholic University Eichstätt-Ingolstadt (#123-2022).

This study was preregistered (DOI: 10.23668/psycharchives.12674).

The dataset for the current study is available from the corresponding author upon reasonable request.

Author Contributions

MG, SCS, and EK were responsible for the conception and design of the study. JM and MJ were concerned with funding acquisition and video production. MG engaged in data collection and analysis. MG, SCS, and EK contributed to the interpretation of data. MG wrote the article, which was critically revised by all the other authors. All authors have approved the final version of the manuscript.

Introduction

Unresolved conflicts, resulting from various causes such as unfulfilled needs and differing value and belief systems (Johnson, 2002), can harm individual well-being, interpersonal relationships, and productivity at work (CPP Inc., 2008). However, when managed constructively, these conflicts can strengthen relationships and foster work effectiveness (Gordon & Chen, 2015; Ou et al., 2018). The key to mitigating the adverse effects and harnessing the positive aspects of conflict lies in the creation of a constructive and respectful conflict culture by strengthening individual conflict management abilities (Coleman, 2018).

Usually, conflict management abilities are developed through in-person training in educational or workplace settings or via mediation and conciliation services. While these approaches are both popular and effective (CPP Inc., 2008; Leon-Perez et al., 2015; Sharif et al., 2013; Turk, 2018), they are often accessible to a limited audience or are sought out only after a significant escalation of conflicts. To expand the reach of traditional approaches with a more

inclusive and preventive method, we suggest the utilization of online videos, as such videos may serve as an effective tool for improving individual conflict management abilities.

Online videos can potentially reach a broad audience, and they have become a popular medium for communicating scientific information (Auxier & Anderson, 2021; Kohler & Dietrich, 2021). They have been demonstrated to be effective in promoting knowledge, altering attitudes, changing intentions, and developing skills across different fields (Finkler & León, 2019; Shoufan & Mohamed, 2022; Tuong et al., 2014). By presenting information in a vivid manner, videos enhance viewers' ability to understand and retain the content presented (Blondé & Girandola, 2016). This ability of videos to dynamically present information not only supports a more favorable evaluation by the audience but also often renders this medium more effective than static, text-based methods (Moskell & Turner, 2022; Walthouwer et al., 2015).

While videos are increasingly being integrated into many conflict training programs as demonstrations or for self-modeling exercises (ElGamal et al., 2023; Hochhauser et al., 2018), there is limited research on the exclusive use of videos for education on conflict resolution (Jaudas, 2020). This study seeks to bridge this gap by examining the effectiveness of such video content on conflict-related attitudes and behaviors, thereby potentially contributing to the improvement of individual conflict management abilities.

First, we offer an overview of the insights obtained from the existing literature on conflict resolution, focusing on the elements of productive conflict management. Drawing on these insights, we outline the content of our intervention and predict its anticipated effects, particularly focusing on changes in conflict-related beliefs, feelings, and behaviors. Ultimately, we assess the effectiveness of the intervention.

What Constitutes "Productive" Conflict Management?

Training programs on productive conflict management generally address several topics, presenting basic knowledge on conflict, covering its definition, types, causes, and consequences, as well as the potential positive aspects of conflict (ElGamal et al., 2023; Ibrahim et al., 2018). Additionally, many programs focus on the development of conflict-related skills such as emotion regulation, communication, and perspective-taking (Hochhauser et al., 2018; Leon-Perez et al., 2015; Sharif et al., 2013). The topics covered also include conflict-handling styles and strategies for integrative and collaborative conflict resolution, typically tailored to specific contexts, such as work environments (Hochhauser et al., 2018; Ibrahim et al., 2018; Leon-Perez et al., 2015).

However, rather than any specific techniques or methods for the defined contexts, we suggest that "conflict intelligence" (Coleman, 2018, p. 12) and "psychological maturity" (Chetkow-Yanoov, 1994, p. 69) can be helpful in effectively managing the highly complex dynamics of conflict. Such a mindset involves the ability to optimize and adapt strategies to render them suitable for various circumstances. In other words, no single method or strategy— for instance, prioritizing cooperation over competition—is universally superior (Coleman, 2018). Additionally, conflict avoidance is deemed dysfunctional (Tjosvold & Sun, 2002). Moreover, there is an emphasis on the recognition of the relativity of one's own viewpoints, an openness toward other norms and value systems, a willingness to change personal habits or beliefs, and a move away from viewing conflicts in black-and-white terms of right or wrong (Chetkow-Yanoov, 1994).

Embracing these principles may allow for a nuanced and flexible approach to conflict, focusing on individual motives, needs, and emotions, steering clear of simplistic judgments.

Following these assumptions, an intervention aimed at broad conflict resolution education should focus on imparting a holistic understanding of conflicts, including a psychological perspective on their origins, dynamics, and methods of resolution, as well as on enhancing a productive conflict mindset.

A Psychological Understanding of Conflict Resolution

Mediation, as a professional method for conflict management, provides a comprehensive understanding of interpersonal conflict resolution, as it typically follows an ideal-typical process. This process ranges from an analysis of the conflict and achievement of mutual understanding to a reconsideration of one's own positions, ultimately leading to a joint search for a solution (Montada, 2007; Montada & Kals, 2013).

Analyzing the Conflict

Effective conflict management begins with a thorough analysis and understanding of a conflict and its underlying issues (Carnevale & Pruitt, 1992). Traditionally, conflicts are believed to originate from incompatible positions, goals, or action tendencies (Carnevale & Pruitt, 1992; Deutsch, 1973). Instead of bargaining over fixed positions, however, it is important to explore and reflect upon the "deep structure" of the conflict, which encompasses the underlying motives and needs that the parties in conflict rarely verbalize (Deutsch, 1973). Being aware of these needs enables the parties involved to specifically target them, thereby enabling the de-escalation of the conflict (Sasaki & Overall, 2023). Moreover, depending on the type of the conflict (task-related conflict or relationship-focused conflict), different strategies can be utilized to address either the problem or the emotions involved in order to prevent escalation (Pluut & Curseu, 2013). Therefore, to reach mutually acceptable and, consequently, sustainable solutions, it is important for the involved parties to recognize and understand the interests and needs of each other (Carnevale & Pruitt, 1992; Deutsch, 1973).

Establishing Mutual Understanding

Uncovering and explaining the underlying motives behind conflict-related behaviors helps the parties in conflict change their perspectives, establish mutual understanding, and recognize pluralistic motives of the other party beyond self-interest (Ayoko et al., 2002; Deutsch, 1973; Fisher & Ury, 1991). Gaining insights into the other party's norms, values, and motives as well as the external factors or barriers to acting differently may reduce attributed blame and increase the willingness to forgive (Deutsch, 1973; Takaku, 2001). Moreover, when there is understanding between the parties, it not only aids conflict resolution but also enhances relationship satisfaction (Gordon & Chen, 2015).

Reconsidering One's Own Position

After the clarification of positions and motives in a conflict, it is helpful to reevaluate one's own position and demands, especially when resolution appears unattainable (Carnevale & Pruitt,

1992; Chetkow-Yanoov, 1994). According to justice psychology, conflicts often arise from perceived injustices associated with the violation of a (subjective) norm (Montada, 2007). By questioning the norms' universal and objective validity, multiple legitimate perspectives on the conflict-provoking behaviors may be recognized. Doing so may, in turn, de-escalate tensions and reduce outrage (Deutsch, 1973). Stepping away from assigning blame and exploring alternative explanations for the behaviors can enhance demonstrated understanding, prevent further escalation by reducing negative communication, and potentially lead to peaceful resolution (Chetkow-Yanoov, 1994; Montada, 2007; Sanford, 2006).

Finding Solutions

Once a mutual understanding has been achieved and emotional escalation has been controlled, the parties can jointly begin searching for solutions. Win-win solutions are deemed ideal, as they benefit both sides and extend beyond the limited scope of common solutions, such as compromises (Carnevale & Pruitt, 1992). By striving for collaboration rather than competition, win-win solutions encourage parties to explore underlying interests and engage in creative and innovative problem-solving (Basadur et al., 2000). Implementing such a solution can promote a more harmonious and productive relationship, ensuring that no party feels left out or defeated. Emphasizing shared goals and open communication as well as flexibility in dealing with different perspectives, win-win strategies seek to expand the available options, thereby creating creative outcomes that satisfy the needs and desires of all the parties involved (Carnevale & Pruitt, 1992; Fisher & Ury, 1991; Ou et al., 2018).

Derivations for Video Intervention

Building on this step-by-step process, our video intervention is structured around four key components (Montada & Kals, 2013) that have the ability to significantly enhance individual conflict management skills:

In the first video, we provide insights into conflict analysis to deepen the understanding of the various hidden underlying causes of conflicts. This part aims to raise awareness of the complex factors leading to conflict escalation and encourages critical thinking with regard to personal values and priorities in conflict.

Second, we revisit the assumption that conflicts arise from perceived violations of norms. To reduce potential outrage, viewers are encouraged to acknowledge their norms as subjective and to question the universal validity of these norms, aiming to achieve more empathy and mutual understanding among the parties in conflict.

The third video underscores the common tendency to attribute responsibilities in a one-sided manner during conflicts, often overlooking alternative explanations for the opposing party's actions. The objective is to encourage individuals to reconsider their positions and to adopt more balanced and "fair" perspectives while assessing conflicts.

Finally, we offer guidance on finding solutions, aiming to broaden the conflict resolution repertoire to include win-win strategies that benefit all the parties involved. This part focuses on broadening awareness of the diverse options available for conflict resolution.

While a range of topics may be considered, including emotion regulation and negotiation strategies (Hochhauser et al., 2018; Sharif et al., 2013), economic constraints necessitated a selective approach to choosing our content in this study. We selected the four topics mentioned, as they exemplify the conceptualization of the origins and dynamics of social conflict in mediation (Montada & Kals, 2013) —a process that has been demonstrated to be effective in constructively managing conflicts (Leonov & Glavatskikh, 2017; Turk, 2018).

Based on these four steps, we produced four videos on interpersonal conflict. In this study, we examine their effectiveness in productive conflict management as well as how these effects develop over time.

Expected Changes in Conflict-Related Attitudes and Behaviors

Presenting new information on conflict management may change an individual's attitude toward conflict (Albarracin & Shavitt, 2018). In line with the tripartite model (Rosenberg & Hovland, 1960), which conceptualizes attitudes to consist of cognitive, affective, and behavioral dimensions, we expect our video intervention to lead to changes in conflict-related cognitions, affects, and behaviors.

H1. *The video intervention increases productive beliefs about conflict.*

The *cognitive component* of attitudes comprises perceptual responses and beliefs that are shaped by prior exposure to information or educational content (Breckler, 1984; Rosenberg & Hovland, 1960). For instance, previous research has examined beliefs about the psychological and practical implications of different conflict types (Johnson, 2002) as well as beliefs about the positive and negative utilities of conflict (Ou et al., 2018; Simon et al., 2008). This study aims at altering beliefs about how to productively deal with conflict. Considering that conflict training programs have already demonstrated the potential to enhance knowledge about conflict resolution (ElGamal et al., 2023; Ibrahim et al., 2018), our video-based approach intends to challenge existing dysfunctional beliefs—such as the idea that the opposing party is driven solely by self-interest or that only one's own perspective on the conflict is valid—and to foster empathy for others' perspectives, thereby enhancing productive beliefs about how to manage conflict.

H2. *The video intervention decreases negatively experienced feelings toward conflict.*

The *affective component* of attitudes entails both sympathetic nervous responses and verbal expressions of feelings shaped by previous experiences with the subject (Breckler, 1984; Rosenberg & Hovland, 1960). Whereas past research has, for instance, explored the association between current moods and conflict styles (Montes et al., 2012) and the regulation of specific emotions in conflict (Halperin & Tagar, 2017), our focus lies on the overall affectivity in conflict situations. We assume that the participants will integrate the theoretical knowledge gained from the intervention into their real-life experiences, thereby enhancing their confidence in their ability to effectively employ these strategies to attain positive outcomes, consequently reducing their negative affectivity toward conflict (Lazarus & Folkman, 1984). Additionally, by emphasizing the role of perspective-taking in lessening anger and outrage and by promoting mutually beneficial solutions, we expect the participants to regard conflicts more positively, further decreasing their negatively experienced feelings toward conflict.

H3. *The video intervention increases productive conflict behaviors.*

The *behavioral component* encompasses verbal statements concerning behaviors as well as overt actions, which are reinforced through operant conditioning (Breckler, 1984; Rosenberg & Hovland, 1960). Cognitive and affective attitude components act as critical mediators linking knowledge acquisition to behavioral outcomes (Breckler, 1984). For instance, constructive and destructive beliefs about conflict can influence an individual's goals in conflict scenarios, determining whether they respond in an aggressive or compliant manner (Simon et al., 2008). Moreover, positive affectivity is associated with more cooperative conflict management styles (Montes et al., 2012). Furthermore, conflict training programs have already proven successful in modifying behaviors (ElGamal et al., 2023; Hochhauser et al., 2018). By nurturing productive beliefs and emotions related to conflict, providing specific tips for adjusting conflict behaviors according to situational demands and the needs of the conflict partner, encouraging reflection on past behaviors, and broadening the array of potential solutions, we expect participants to modify their conflict behaviors during the course of the intervention.

H4a. *Productive beliefs about conflict significantly increase after the first point of measurement.*

H4b. *Negative feelings toward conflict significantly decrease at a later point of measurement, following the increase in productive beliefs.*

H4c. *Productive conflict behaviors significantly increase at a later point of measurement, following the increase in productive beliefs.*

Cognitions can shift relatively quickly after new information is presented, whereas changes in affective attitudes and behaviors often depend on prior experiences (Breckler, 1984). In the context of conflict management, positive experiences may often stem from the individual's perception of their ability to effectively resolve conflicts—an aspect that is only introduced in the final video of the intervention. Therefore, the sequential unfolding of knowledge and skill acquisition, combined with the processual nature of transforming knowledge into enduring changes in attitudes and, eventually, behaviors (Bettinghaus, 1986), leads to the expectation that participants will display diverse patterns and rates of change in their beliefs, feelings, and behaviors as they progress through the intervention.

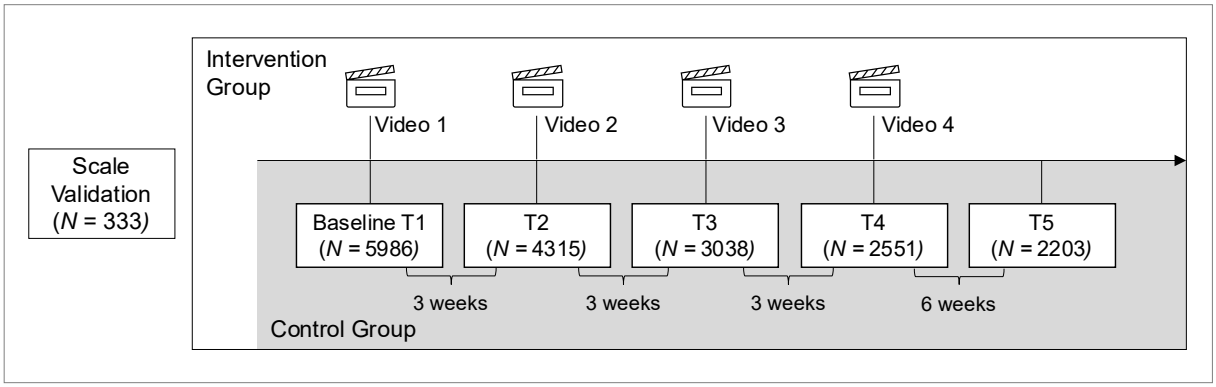
Method

Study Design

To address the limitations of (self-)selection bias in field experiments (Benedict et al., 2019) and to strengthen internal validity, we implemented a longitudinal randomized pre-post experimental design and used a panel sample. Thus, the sample includes people who would not naturally watch videos on social media. This inclusion helps present a clearer picture of the extent to which the videos can be effective independently of any selection effects. German participants were randomly assigned to one of two groups: intervention and control. The participants in the intervention group (IG) completed the same online survey on five points of measurement (T1–T5) and watched a total of four videos, one after each survey from T1 to T4. The participants in the control group (CG) completed the same online survey at the same five points of measurement. We conducted a pre-study (N = 333) to validate the scales and items. Figure 1 illustrates the study design and outlines the total sample sizes on each survey date.

Figure 1

Study Design, Points of Measurement, and Sample Sizes



Procedure

The outcome variables were measured at baseline (T1) as well as three (T2), six (T3), nine (T4), and 15 weeks (T5) after baseline for follow-up. The chosen number and intervals between the measurements had several advantages: A higher number of measurements increases efficiency and enables the detection of nonlinear gradients (Timmons & Preacher, 2015). The participants responded before watching the videos, to ensure that the outcome variables were measured prior to video reception and, thus, three weeks (or six weeks at T5) after the previous video exposure. We expected these intervals of a few weeks between intervention and outcome measurement to allow sufficient time for the participants to apply the conflict strategies presented between video inputs (Dormann & Griffin, 2015). At the same time, the study design could not be too extensive, in order to avoid excessive panel mortality and measurement bias due to memory lapses (Ployhart & Vandenberg, 2010). Time was the within-subject variable (five levels), whereas group (two levels) was the between-subject variable.

Sample

We surveyed $N = 5986$ participants at baseline ($n = 4436$ in IG, $n = 1550$ in CG), aiming to represent the German population in terms of gender (IG: 51% female, CG: 49% female), age (limited to ages between 18 and 69; IG: $M = 45.37$, $SD = 14.18$; CG: $M = 44.57$, $SD = 14.60$), and educational level (IG: 28% low, 32% middle, and 41% high; CG: 28% low, 33% middle, and 40% high). Despite the efforts made, the drop-out rate was high (see Figure 1), which is typical for panel studies (Lynn, 2018). This high rate may be due to the brief one-week response window and the exclusion of non-responders from future surveys, besides the survey's length of 30 to 45 minutes relative to the compensation of around $3. Analyses were confined to only those participants who completed all five surveys ($N = 2203$, $n = 1567$ in IG, $n = 636$ in CG). Table 1 contains the socio-demographic details of the analyzed sample at baseline, showing that both analyzed samples are comparable in terms of their socio-demographic characteristics. While comparing the socio-demographic data of the total sample with the data of the analyzed sample at baseline, we noted slight tendencies of higher attrition rates among women, younger participants, and those with lower educational levels.

Table 1

Socio-Demographic Data of the Analyzed Sample at Baseline (N = 2203)

	Intervention Group (*n* = 1567)	Control Group (*n* = 636)
Gender	45% female, 55% male	46% female, 54% male
Age	*AM* = 49.73, *SD* = 12.45 (18–69 years)	*AM* = 49.44, *SD* = 13.18 (18–69 years)
Education	26 % low, 25 % middle, 49 % high	21 % low, 34 % middle, 45 % high
Vocational status	51% full time, 18% part time, 21% retired, 10% other	50% full time, 18% part time, 22% retired, 10% other
Relationship status	39% single, 61% in a relationship	34% single, 66% in a relationship
Prior experience with professional conflict training	20% yes, 80% no	18% yes, 82% no

Video Intervention

The intervention consisted of four videos, each of which was in German and about 15 minutes long. Screenshots from the videos, as well as URLs, are available in the supplementary material.

Video Content

The content of the videos ranged from conflict analysis to conflict solution and covered the following topics: (1) the surface and deep structure of conflicts, (2) the norm violation and (3) the attribution of responsibility as preconditions for conflict and their de-escalating relativization, as well as (4) the generation of win-win solutions. The videos were produced in two stages. Initially, individuals from the general population were interviewed about their personal experiences with a specific conflict, with certain aspects being explored in detail based on the topic of the video (for interview details, see Grunenberg et al., 2023). For example, a middle-aged woman spoke about her daily disputes with her husband and reflected on the underlying motives and needs (Video 1). Subsequently, two male experts in conflict psychology (aged 28 and 25 years) commented on excerpts from the interviewee's statements, explaining the relevant theoretical concepts. Afterward, the discussion broadened from the interviewee's particular conflict to include inputs from a male mediation professional (aged 48 years), who presented topic-specific advice on how to deal with conflicts in a more constructive manner. Each video concluded by encouraging viewers to apply the discussed insights to their own conflict situations.

Video Design

The impact of educational videos is influenced by their design elements, with the "edutainment" format—a combination of educational content with entertaining storytelling

(Taddicken & Reif, 2020)—proving to be effective (Finkler & León, 2019; Kohler & Dietrich, 2021). Such videos, characterized by their simplicity, narrative structure, and emotional engagement, have been demonstrated to foster greater knowledge gains compared to traditional factual-style videos (Boy et al., 2020; Hébert et al., 2020). By integrating aspects of entertainment, edutainment videos evoke emotions that enhance attention, learning, and memory processes (Dai & Wang, 2023; Tyng et al., 2017). Embracing these benefits, our videos adopt the edutainment approach, providing content in a modern and attractive style, using laymen's terms, and incorporating humor and entertaining storytelling.

Video Protagonists

Besides style and language, characteristics of the video's protagonists can further facilitate learning. Social learning theory (Bandura, 1969) suggests that individuals learn more effectively from the experiences of others when they can identify with and consider speakers in the video trustworthy (Boy et al., 2020). Having similar models and observers may be advantageous for positive affective processes during learning (Hoogerheide et al., 2016). Video modeling and observational learning have also been successfully used in negotiation and conflict management training (Hochhauser et al., 2018; Nadler et al., 2003). Therefore, our videos feature a diverse range of individuals, not limited to experts but including members of the general public of various ages and genders, to enable identification with the interviewees.

Measures

All items[1] were answered using a 6-point Likert scale of agreement. The Cronbach's alphas reported below represent the range of each alpha for the IG and CG across all five surveys.

Conflict-Related Outcomes

We relied on instruments that had already been used in a similar form (as cited) and modified items based on conflict psychology literature. *Beliefs About Conflict* were measured with six items ($.79 \leq \alpha \leq .86$; adapted from Jaudas, 2020). *Negatively Experienced Feelings Toward Conflict* were measured with three items ($.80 \leq \alpha \leq .86$; adapted from Weh & Enaux, 2008). *Productive Conflict Behaviors* were measured with six items ($.91 \leq \alpha \leq .96$; adapted from Jaudas, 2020). In T5, the items were *In the last six weeks…*. All items are listed in Table A-1 in the Appendix.

As item and scale analyses of the pre-study ($N = 333$) for scale validation revealed a high internal consistency ($.72 \leq \alpha \leq .90$) and good discriminatory power for each item ($.47 \leq r_{it} \leq .77$), no scale adjustment was necessary.

[1] We collected further measures (for more information, see the preregistration). Due to space limitations and the specific objectives of the article, they are not reported in this article. The items for all variables are originally in German and have been translated for this article.

Covariates

We calculated a *propensity score* using socio-demographic variables, prior experience with professional conflict training, and perceived frequency of conflicts at baseline (Austin, 2011). Additionally, we included *perceived frequency of conflicts* (one self-developed item, *In the last three/six weeks, I have experienced conflicts, such as disagreements, difficult conversations, or disputes in my daily life.*) and *social desirability* (six items, $.65 \leq \alpha \leq .73$; Kemper et al., 2012) as covariates with respective scores at any measurement. We measured social desirability due to its association with self-reported conflict experiences (Nauta & Kluwer, 2004). The propensity score and the respective outcome at baseline were treated as covariates in every outcome analysis. In contrast, depending on their correlation strength with the respective outcome ($r > .30$), social desirability was only included as a covariate for productive beliefs about conflict, and perceived frequency of conflicts was only included as a covariate for productive conflict behaviors.

Mixed Models in Data Analysis

In order to analyze video effectiveness, we used linear mixed models with repeated measures (MMRM) as they account for unbalanced designs with unequal sample sizes (West, 2009). Analyses were run with the MIXED procedure in IBM SPSS Statistics 28, following West (2009) and West et al. (2022). The fixed effects were group, time, group*time, and covariates. The random effects were the subjects. Restricted maximum likelihood (REML) was used as a parameter estimation method. The covariance structures for the MMRMs were determined by comparing Akaike's information criterion (AIC) and selecting the covariance structure that resulted in the smallest AIC (West et al., 2022). The covariance type was set as first-order autoregressive (AR1) for repeated measures and as variance components (VC) for random effects. The significance criterion was set at $\alpha = .017$ in accordance with the Bonferroni correction for multiple testing (three MMRMs, $.05/3 = .017$; Victor et al., 2010).

Results

Table 2 presents the means (*M*) and standard deviations (*SD*) for all outcome variables across each measurement for the IG and the CG. At baseline, the participants already possessed strong productive beliefs about conflict and reported productive conflict behavior as well as negatively experienced feelings toward conflict slightly above the scale's mean (3.5).

Table 3 details the effect sizes for changes between measurements for all outcomes. Comparisons between groups at baseline revealed no significant differences across any of the outcome variables ($p > .61$).

Table 2

Mean (M) and Standard Deviation (SD) for Measurements and Groups

		T1 *M* (*SD*)	T2 *M* (*SD*)	T3 *M* (*SD*)	T4 *M* (*SD*)	T5 *M* (*SD*)
Productive Beliefs	IG	4.81 (0.71)	4.91 (0.71)	4.94 (0.72)	4.95 (0.73)	4.99 (0.72)
	CG	4.75 (0.76)	4.77 (0.73)	4.77 (0.72)	4.79 (0.74)	4.78 (0.74)
Negatively Experienced Feelings	IG	3.71 (1.18)	3.67 (1.17)	3.67 (1.20)	3.67 (1.21)	3.65 (1.23)
	CG	3.70 (1.16)	3.73 (1.15)	3.73 (1.16)	3.75 (1.19)	3.74 (1.21)
Productive Behaviors	IG	3.91 (1.15)	3.93 (1.16)	3.94 (1.21)	3.94 (1.27)	4.06 (1.22)
	CG	3.85 (1.16)	3.81 (1.22)	3.79 (1.27)	3.78 (1.25)	3.76 (1.33)

Note. IG = Intervention Group, CG = Control Group. 1 = *absolutely not true*, 6 = *absolutely true*.

Table 3

Effect Sizes for Outcomes and Groups From Measurement to Measurement

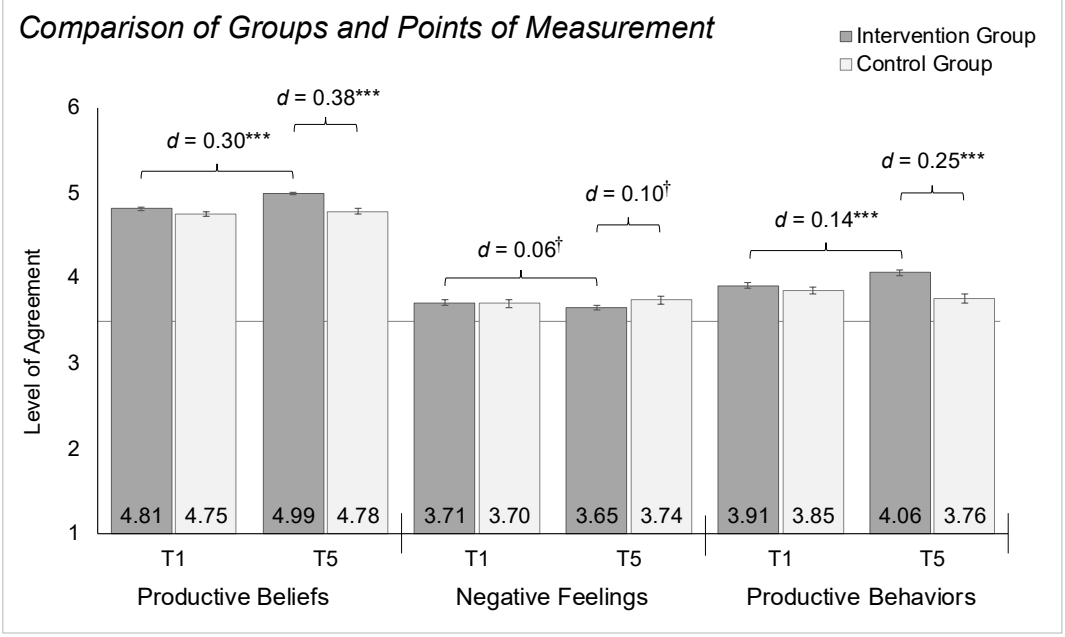
		T1	T2	T3	T4	T5	Group Differences
Productive Beliefs	T1	-	0.05	0.04	0.08†	0.05	0.03
	T2	0.20***	-	0.01	0.03	0.00	0.21***
	T3	0.23***	0.06	-	0.05	0.01	0.29***
	T4	0.24***	0.02	0.01	-	0.04	0.25***
	T5	0.30***	0.12***	0.08**	0.07**	-	0.38***
Negatively Experienced Feelings	T1	-	0.03	0.02	0.04	0.03	0.01
	T2	0.05†	-	0.00	0.02	0.01	0.09
	T3	0.05	0.00	-	0.02	0.01	0.09
	T4	0.04	0.01	0.01	-	0.01	0.10
	T5	0.06†	0.01	0.01	0.03	-	0.12†
Productive Behaviors	T1	-	0.03	0.03	0.02	0.04	0.01
	T2	0.04	-	0.01	0.00	0.01	0.08
	T3	0.06*	0.03	-	0.01	0.01	0.13*
	T4	0.06†	0.02	0.01	-	0.02	0.11†
	T5	0.14***	0.11***	0.08**	0.09***	-	0.25***

Note. Effect sizes are indicated as Cohen's *d*. Values for the IG are presented below the diagonal; values for the CG are presented above the diagonal. † $p < .05$; * $p < .017$, ** $p < .01$, *** $p < .001$.

To test Hypotheses 1, 2, and 3, we examined overall changes in the outcomes from baseline (T1) to the follow-up, 15 weeks later (T5), by conducting both within- and between-group comparisons to assess interactions of time and group. Figure 2 displays the main results, including the effect sizes for significant changes.

Figure 2

Changes in Outcomes Across Groups From Baseline to Follow-Up With Effect Sizes

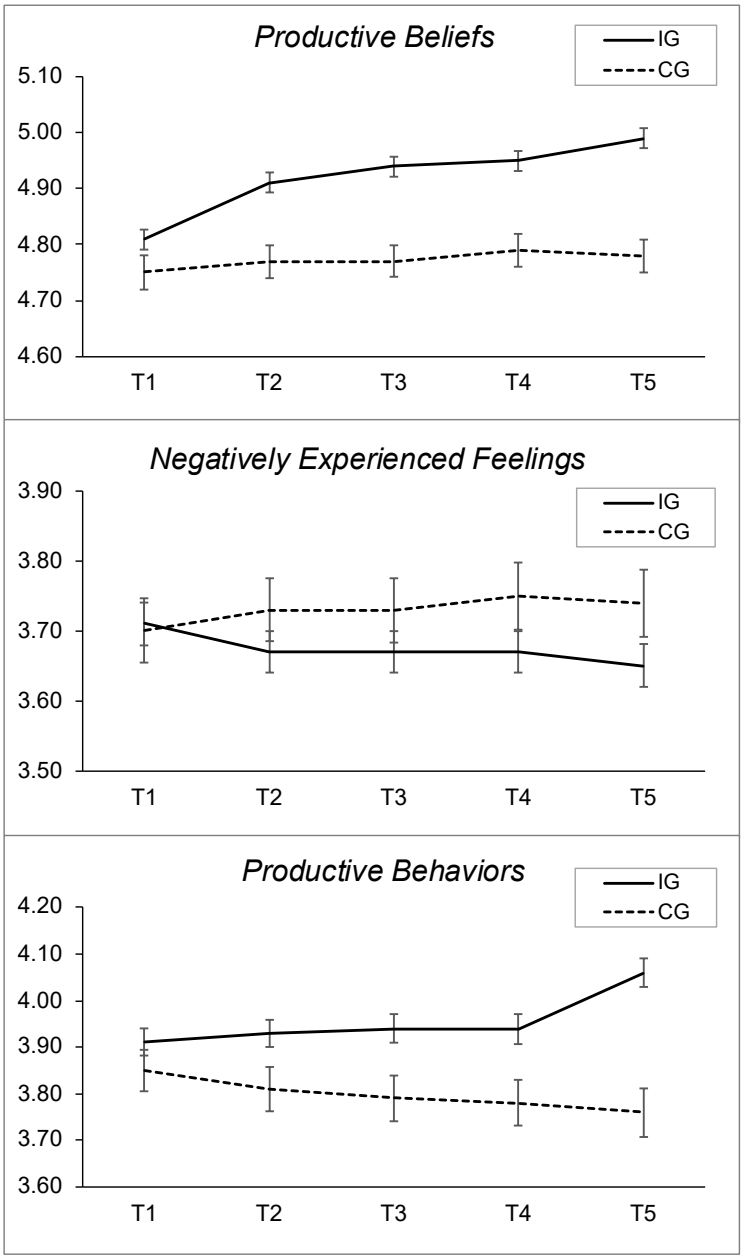


Note. Groups did not differ significantly at baseline (T1) for any variable. The CG showed no significant change. 1 = *absolutely not true*, 6 = *absolutely true*. Error bars indicate standard errors of the mean. † $.017 < p < .05$, *** $p < .001$.

To test Hypotheses 4a-c, we analyzed the specific changes in outcome variables from one measurement to the next. Figure 3 illustrates their development across all five measurements for both groups.

Figure 3

Changes in Beliefs, Feelings and Behaviors Over Time for Both Groups



Note. Error bars indicate standard errors of the mean. T1–T5 indicate times of measurement. IG = intervention group, CG = control group.

Productive Beliefs About Conflict

H1 stated that video intervention increases productive beliefs about conflict. The interaction group*time had a significant impact on *productive beliefs* ($F_{beliefs}$ = 7.806, *df* = 4/4630.97, $p < .001$). Significant main effects were observed for both group ($F_{beliefs}$ = 40.011, *df* = 1/2146.74, $p < .001$) and time ($F_{beliefs}$ = 16.109, *df* = 4/4632.83, $p < .001$). Effect sizes from baseline to T5 indicated a medium effect for the IG ($d_{IG(T1T5)}$ = 0.30, $p < .001$) but no significant effect for the CG (p = .226). Significant differences between the groups were evident at T5 (d_{T5} = 0.38, $p < .001$). Therefore, Hypothesis 1 is confirmed.

In the IG, the participants reported a significant increase in productive beliefs at T2, three weeks after watching the first video (d_{T1T2} = 0.20, $p < .001$). This change was followed by another significant rise from T2 to T5 (d_{T2T5} = 0.12, $p < .001$). The groups demonstrated a significant difference for the first time at T2 (d_{T2} = 0.21, $p < .001$). In the CG, there was a tendency for a change in productive beliefs from T1 to T4 (d_{T1T4} = 0.08, p = .046), but no other tendencies or significant changes were observed at any other time of measurement (p >.19).

Negatively Experienced Feelings Toward Conflict

H2 suggested that video intervention decreases negatively experienced feelings toward conflict. However, there was no significant interaction group*time for *negatively experienced feelings toward conflict* ($F_{affective}$ = 1.21, *df* = 4/4780.95, p = .304). Similarly, the main effect of time was not significant ($F_{affective}$ = 0.24, *df* = 4/4780.95, p = .917). Although the main effect of group showed a tendency, it was not statistically significant ($F_{affective}$ = 4.64, *df* = 1/2139.67, p = .031). Consequently, Hypothesis 2 is rejected.

For the IG, there was a tendency for negatively experienced feelings to decrease from T1 to T2 (d_{T1T2} = 0.05, p = .042) and from T1 to T5 (d_{T1T5} = 0.06, p = .019). Additionally, at T5, there was a tendency toward a group difference (d_{T5} = 0.10, p = .026), with the IG reporting lower levels of negatively experienced feelings.

Productive Conflict Behaviors

According to H3, video intervention increases productive conflict behaviors. *Productive conflict behaviors* showed a significant interaction group*time ($F_{behavior}$ = 3.86, *df* = 4/5003.13, p = .004). There was a significant main effect of group ($F_{behavior}$ = 11.042, *df* = 1/2146.96, $p < .001$). However, the main effect of time was not significant ($F_{behavior}$ = 1.440, *df* = 4/5011.71, p = .218). While the IG exhibited a small but significant overall effect from T1 to T5 ($d_{IG(T1T5)}$ = 0.14, $p < .001$), no significant change was found in the CG over the same period (p = .343). Therefore, Hypothesis 3 is confirmed.

Productive behaviors in the IG tended to increase T3 onward (d_{T1T3} = 0.06, p = .01, d_{T1T4} = 0.06, p = .02), reaching its highest level at T5 (d_{T1T5} = 0.14, $p < .001$). No significant changes were found in the CG ($p > .34$).

Changes Over Time

H4a-c posited that the outcome variables change significantly at different points of measurement. When comparing the changes in each outcome over time in the IG, it was evident that beliefs registered an early increase from T1 to T2, while feelings remained largely unchanged, and behaviors became substantially more productive only at the final assessment at T5. Therefore, Hypotheses 4a and 4c are accepted, whereas Hypothesis 4b is rejected.

Discussion

This article raised the following question: Can videos on the subject of conflict improve people's productive conflict management? Our hypotheses are largely confirmed. Although the participants' productive beliefs and behaviors were already slightly above the scale mean at the beginning, the videos still improved productive beliefs about conflict and productive conflict behaviors in the IG. Negatively experienced feelings toward conflict showed no significant changes. In the detailed analysis, the outcomes showed different developments over the course of 15 weeks: In the IG, beliefs about conflict increased immediately after the first video, while productive conflict behaviors had later and smaller effects. In the CG, there were no significant changes. Therefore, overall, our videos were effective in conveying psychological conflict content and strengthening individuals' productive cognitive attitudes and behaviors.

In accordance with previous studies (e.g., Boy et al., 2020; Record et al., 2021), our results support the potential to change beliefs via edutainment videos. While the increase in productive beliefs about conflict was particularly high when confronted with information on conflict for the first time, there were smaller rates of change at T3 and T4. The observed nonlinear change pattern could be ascribed to the thematic similarity among Videos 2 and 3, suggesting that these subsequent videos may have primarily served to differentiate and consolidate the insights acquired from Video 1: After the first video created an awareness of the diverse motives and needs underlying individual conflict behaviors, Videos 2 and 3 focused on a similar aspect, namely creating an understanding of the other person's situation.

By acknowledging the relativity of one's perspective, participants may have become more receptive to alternative viewpoints (Chetkow-Yanoov, 1994). The resulting increase in empathy could have reduced attribution bias, as individuals considered explanations for the other's behaviors beyond mere self-interest (Klimecki, 2019). In turn, this decreased tendency to assign blame could have led to more favorable attitudes toward the other person, enhanced displays of understanding, and less negative communications (Klimecki, 2019; Sanford, 2006). Another significant gain in productive beliefs occurred after information on conflict resolution was presented in Video 4. The emphasis on win-win solutions could have reshaped previously noted incompatible motives and needs into chances for creating mutually beneficial outcomes. This shift in the perceived range of potential conflict solutions may have not only affected individual conflict goals but also encouraged creative problem-solving strategies (Carnevale & Probst, 1998; Simon et al., 2008). Additional research is necessary to confirm these assumptions regarding mediating mechanisms.

The effect sizes for attitude change are consistent with those found in previous studies, where attitude change resulting from interventions or messages was associated with a small effect size of $d = 0.22$ (for an overview, see Albarracin & Shavitt, 2018). While other intervention studies only implemented one pre-post test (e.g., Moskell & Turner, 2022; Mundorf et al., 2018), we were

able to demonstrate a positive change in productive beliefs in the IG over a longer survey period, which underlines the stability of the findings and helps understand the development.

Negatively experienced feelings toward conflict did not change significantly, although there was a slightly decreasing trend in the IG. Some previous intervention studies found positive, negative, or even non-significant changes in affective attitudes toward the respective video content (e.g., Lu et al., 2018; Moskell & Turner, 2022; Soble et al., 2010).

There are several possible reasons our video content had no effect on the recipients' feelings toward conflict, which should be investigated in future research. First, the videos mostly included content concerning the cognitive aspects of conflict analysis and solutions. Second, how conflict is experienced emotionally depends on the subjective perception of conflict-related skills and available resources (Lazarus & Folkman, 1984). Although there was sufficient time to gain knowledge and to apply this knowledge in the first step, the survey period may not have been long enough for the participants to develop sufficient skills and resources that would have allowed them to experience themselves as self-sufficient and, thus, to evaluate conflict in a more positive manner. Additionally, an ambiguous attitude does not seem unusual, as conflict can be perceived as unpleasant but also functional at the same time. This idea undermines the literature on the cognitive-affective inconsistency (Norman, 1975). Finally, examining positively experienced feelings toward conflict may be useful, as emotions do not represent a continuum (Briesemeister et al., 2012).

A very limited number of studies have investigated changes in conflict *behaviors* after a video intervention (e.g., Jaudas, 2020; Hochhauser et al., 2018). Other studies that have investigated health-related behaviors using video interventions have reported either small or highly variable effect sizes (Yang, 2017). We also found rather weak effects on actual behavioral change that only became highly significantly apparent at T5. According to Bettinghaus (1986), behavioral changes take a longer period: Gradually modifying beliefs about productive conflict management may have initially enhanced behavioral intentions and perceptions of action control as well as self-efficacy, alongside a shift in the pursued conflict goals, before any productive behaviors were evident (Fishbein & Ajzen, 1975; Simon et al., 2008). The participants probably required time to become accustomed to adopting others' perspectives and to reflect on their own actions as well as the dynamics of a conflict. However, it was only after becoming aware of the other party's needs that they were able to adapt their behaviors accordingly (Pluut & Curseu, 2013; Sasaki & Overall, 2023). As conflict situations are not necessarily commonplace, the participants may not have been able to sufficiently apply the acquired knowledge during the 15 weeks of the intervention. Further, the presented insights accumulated to a greater amount with each measurement point. Thus, the increase in productive conflict behaviors may have primarily required a more comprehensive knowledge base ranging from an in-depth understanding of conflict (Video 1) and the relativization of norms and blame (Videos 2 and 3) to an expanded scope for solutions (Video 4).

Considered together, it is worth noting that merely four 15-minute videos were able to increase productive beliefs as well as change conflict behaviors significantly. In line with the principle of small steps, even a small effect can have a significant impact due to the wide reach of social media (Yang, 2017). Thus, we may have been able to achieve our overarching goal of improving productive conflict management skills in our target group.

Implications for Future Research

Our study enriches both the theoretical and empirical landscapes by not only affirming the distinctiveness of the tripartite model's components (Rosenberg & Hovland, 1960) and substantiating the idea that affective attitudes cannot be easily changed through mere information (Breckler, 1984), but also by contextualizing the tripartite model within the context of conflict. In doing so, we present new constructs—beliefs about productive conflict behaviors, feelings toward conflict, and flexible conflict behaviors—and introduce validated scales for measuring these variables. Methodologically, our study is characterized by a large sample that is representative of the general German population in terms of age, gender, and educational level. The longitudinal design enabled the detection of process effects that were controlled for various covariates and analyzed using robust statistical methods.

Despite these strengths, some limitations must be highlighted. First, the observed effect sizes were rather small. Productive conflict management depends on many situational factors and requires a longer period of testing and reflection. In most cases, strongly internalized cognitive and behavioral patterns must be changed. In this respect, and in line with the principle of small steps (Yang, 2017), the effect sizes achieved were satisfactory. Second, our study is characterized by high drop-out rates in the first few surveys, for example, due to natural panel mortality across the duration of the study or a potential loss of interest in the videos (Lynn, 2018). Third, there are general concerns about the data quality of the panel samples. Considering the suggestions presented by the literature (e.g., Walter et al., 2019), we ensured data quality by utilizing attention checks and speeder checks, conducting data cleaning (e.g., due to illogical inconsistencies in socio-demographic data across different points of measurement; multiple participation in a survey controlled by ID), or screening for extreme response tendencies (e.g., answering every survey item with 1).

In addition to addressing these limitations, there are several avenues for further research. First, subsequent studies should explore the effects of different intervention mediums and contents. It includes contrasting the unique contributions of edutainment, vividness, and audiovisual elements in our video intervention with other video styles and formats, such as texts. Further, it would be beneficial to investigate whether the complexity and specificity of video content can be simplified without compromising efficacy by comparing varying contents and scopes. In particular, examining the effects of different contents, such as emotion regulation, communication, or perspective-taking, could be worthwhile (Hochhauser et al., 2018; Leon-Perez et al., 2015; Sharif et al., 2013), with an emphasis on content that may influence positively experienced feelings toward conflict.

Second, future research should assess the moderating factors that may impact the effectiveness of conflict-related video interventions, for instance, the attractiveness and credibility of the video and its speakers (Boy et al., 2020) as well as the recipients' interest in the subject matter (Kohler & Dietrich, 2021), growth mindset (Duchi et al., 2020), and cultural background (Oetzel et al., 2001). It is also vital to identify factors that may not only lessen but actually reverse the intended effects, such as the recipients' objections to the content (Hart & Nisbet, 2012).

Third, it is essential for future investigations to explore mediating mechanisms, including factors we already discussed, such as bias reduction (Sanford, 2006), empathy (Klimecki, 2019), personal goals (Simon et al., 2008), perceptions of conflict situations (Leonov & Glavatskikh, 2017), or self-efficacy beliefs (Fishbein & Ajzen, 1975).

Finally, long-term effects should be examined in terms of interpersonal relationships, applicability to other contexts such as political debates or public issues (Johnson, 2002), and the potential impact of an altered conflict mindset on creativity and cognitive adaptability (Carnevale & Probst, 1998).

Practical Implications

Considering our findings, there are several potential practical applications of conflict videos for diverse fields in educational, societal, and scientific communication endeavors.

These videos may serve as a dynamic tool for conflict training across diverse environments such as schools, universities, online learning platforms, social initiatives, and workplaces. They facilitate targeted knowledge dissemination, acting as a basis for discussion, illustrating concepts vividly, and providing relatable case studies. This approach may be particularly beneficial for individuals who prefer visual or aural instructional methods (Drago & Wagner, 2004). To potentially enhance the impact of the videos, it is advisable to include interactive elements alongside them, in order to offer opportunities for participants to apply the new insights in a practical setting, in line with social learning theory (Bandura, 1969). Considering the demonstrated effectiveness of in-person training programs that offer opportunities for discussion and feedback (ElGamal et al., 2023; Leon-Perez et al., 2015), integrating interactive exchanges may amplify the learning experience. Furthermore, interactive components such as role play or feedback may more effectively address affective issues related to fears and anxieties by facilitating an experience of self-efficacy, potentially empowering individuals with the confidence to successfully handle similar conflict situations.

Furthermore, the videos have the potential to expand their impact on a societal scale by engaging audiences via social media platforms (Auxier & Anderson, 2021). With an edutainment design, the videos may address not only users' information-seeking interests but also their desire for entertainment (Khan, 2017). Importantly, through incidental exposure on these platforms, the videos can reach individuals who may not have actively sought out information on conflict. To spark and sustain these users' interest, an attractive video design becomes essential for reaching and engaging diverse audiences, thereby raising awareness and contributing to a societal culture of constructive conflict resolution and dialogue (Coleman, 2018).

In the context of science communication, our conflict videos demonstrate that it is possible to "demystify" scientific research, making it accessible, understandable, and relevant to the lay public through edutainment formats. This approach can serve to break down the barriers of the "ivory tower" by linking academic findings with everyday experiences.

Conclusion

The efficacy of the videos is especially remarkable considering that these changes occurred as a result of merely watching a few videos over a relatively brief period of time in terms of conflict experiences. It is unreasonable to expect that many participants will fundamentally rethink their beliefs and take alternative actions simply by watching videos. Nevertheless, if several people gradually change the way they think about and act in conflicts as a result of watching the videos, then it constitutes a substantial achievement. Additionally, feedback from participants has also underlined that the videos have prompted a process of profound reflection, which may potentially

have a long-lasting and even a far-reaching impact on their social relationships and, in the longer-term perspective, on society as a whole.

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Appendix

Table A-1
Items for Beliefs, Feelings, and Behaviors

Productive Beliefs About Conflict (α = .79)
1. To resolve conflicts, it's important to view the issue from various angles. 2. I understand that attributing blame to only one party can prevent conflict resolution. 3. To resolve conflicts, it's important to empathize with the other person's perspective. 4. I am aware that people perceive different things as justified in a conflict. 5. To resolve conflicts, it's important to discuss what is perceived as fair. 6. I know that it's possible to find win-win solutions in conflict situations.
Negatively Experienced Feelings Toward Conflict (α = .82)
1. I always find conflicts to be extremely unpleasant. 2. To me, conflicts are inherently frightening. 3. In my view, conflicts are associated solely with negative feelings.
Productive Conflict Behaviors (α = .92)
Over the past three weeks, I have been able to… 1. … react more constructively in conflicts than before. 2. … respond differently depending on the specific conflict situation. 3. … tailor my conflict resolution strategies to the individual or group involved. 4. … resolve conflicts using strategies that I considered appropriate for each situation. 5. … reflect on how I could have acted better after a conflict situation. 6. … continually reassess my conflict management strategies.

Note. In the T5 survey, the items related to productive conflict behaviors were phrased as *Over the past six weeks…*.

Supplementary Material

Figure S-1

Screenshots from the Videos

Note. 1) The two hosts and psychology experts discuss theoretical assumptions. 2) An interviewee shares her experiences with conflicts involving her flatmates. 3) The hosts engage in a conversation with a mediation professional. 4) As the hosts summarize the content at the end of the video, explainer slides are displayed, featuring calls to action for viewers: *Question yourself! Why is this argument so important to me? Would I argue just as intensely with another person?*

The videos can be found on YouTube in German, with the option to automatically generate English subtitles:

(1) Surface and deep structure: https://youtu.be/2dspFbX8LKI
(2) Norm violation: https://youtu.be/-MzCf3zY50U
(3) Attribution of blame: https://youtu.be/neKYhTroS7I
(4) Win-win solutions: https://youtu.be/vqc_8qjJ_ZM