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Invisible Reinforcement in Coercive Control: Toward a Process Model of Constrained Choice

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Abstract. Prior consequences can make resistance costly, while accommodation may prevent the escalation that would make enforcement visible. When coercive control succeeds in this way, it may be particularly difficult to recognize. This directed, theory-building narrative review proposes "invisible reinforcement" as a hypothesis for how coercive control may persist without repeated observable enforcement. Targeted, iterative searches of PubMed, research repositories, government sources, court records, and domestic homicide review materials identified 17 empirical or theoretical works, and three official or legal records. Evidence across qualitative, longitudinal, experimental, survey, and case materials suggests that repeated interference may narrow practical options, credible prior consequences may make resistance appear unsafe, and help-seeking may become a changing risk decision. When accommodation prevents an anticipated consequence or restores calm, relief or non-occurrence may negatively reinforce responses to later cues. Cognitive dissonance, gaslighting, and diminished self-trust may make constrained behavior retrospectively coherent, but remain secondary to the account of persistence. No prospective intimate-partner study identified in the review has measured the full sequence from cue and anticipated consequence through accommodation, relief, later explanation, and subsequent response. Currently, invisible reinforcement is a bounded, testable process hypothesis.

Keywords: Coercive control, negative reinforcement, constrained choice, help-seeking, cognitive dissonance

1. Introduction

A folded towel can be a household object, or a threat. In Wiener's qualitative policing study, an independent domestic violence advisor described a client whose husband had nearly strangled her with a bathroom towel on their honeymoon. Whenever tension arose over the next six years, he would fetch a towel from the bathroom and place it on the table. He did not repeat the assault, issue an instruction, or state a new threat. She understood the reference and complied [1].

The towel drew its force from the relational history it recalled, even though no explicit demand was made. The example poses a recognition problem: an ordinary object can exercise control without a new threat even when the present act appears minor. The incident reveals the cue while concealing the constraint. Recognizing coercive control therefore requires attention to the pattern, since the latest act alone may be misleading [1]. Existing accounts explain how threats, monitoring,

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and punishment can establish coercive force, but offer less detail about what happens after that force becomes credible [2]. The remaining question is how a minor or ambiguous cue can continue to alter behavior when no new threat or punishment is expressed.

This review concerns coercive control rather than interpersonal influence in general. It considers psychological tactics such as withdrawal, guilt induction, contradiction, selective approval, and ambiguous warning only when they form part of a repeated, asymmetric pattern that changes the conditions under which refusal is possible. No tactic is necessarily abusive in isolation. Dutton and Goodman's relational model is the first framework used in this review to specify how such a pattern acquires coercive force. It links a demand or expectation to a credible threatened consequence, monitoring of compliance, and a response to resistance. Once a consequence has established credibility, a smaller cue would carry the force of the earlier event. Past enforcement could then constrain a later choice without being repeated [2]. A behavioral reinforcement account focuses on this later process. When accommodation averts anticipated escalation, the resulting relief may negatively reinforce the behavior and increase the probability of a similar response when the cue returns. On this account, the response does not indicate that the survivor feels safe or prefers submission; it may simply be the action that appears least dangerous at that moment [3]. "Accommodation" refers broadly to behavior adjusted to prevent an anticipated adverse response or end an aversive interaction. "Compliance" refers more narrowly to yielding to a perceived demand, whereas "avoidance" is reserved for experimental tasks. Under these definitions, "invisible reinforcement" occurs when the reinforcing consequence appears as a non-event: no argument, no punishment, or an apparently normal evening. Successful coercion would leave less observable evidence of its operation.

Reinterpretation may follow as a secondary mechanism. Cognitive dissonance theory holds that inconsistencies among beliefs, experiences, and actions create discomfort that people may try to reduce. A person may believe that the relationship is loving and that choices remain free while recognizing that they changed their behavior to prevent a reaction. Dissonance does not inevitably produce self-blame or continued accommodation. When pressure remains deniable, reinterpretation could make constrained behavior retrospectively coherent, especially if the perpetrator supports that account through blame reversal [4].

This narrative review examines a hypothesized temporal sequence that integrates these processes. It asks whether invisible reinforcement could explain the persistence of coercive control without repeated observable enforcement and whether later reinterpretation helps account for constrained behavior.

2. Review method and source selection

This theory-building narrative review used targeted, iterative searches of PubMed, publisher websites, university repositories, official government and court sources, and domestic homicide review materials. Searches were last updated on 23 August 2026. Search terms were combined across concept blocks covering psychological or coercive control; anticipated consequences, avoidance, negative reinforcement, and safety signals; decision-making and risk appraisal; reinterpretation, cognitive dissonance, and self-trust; and help-seeking. Backward citation searches of central theoretical and empirical sources identified additional material. Sources were included if they clarified the proposed temporal sequence, its enabling conditions or consequences, or a boundary of the account, and provided enough methodological or factual detail to assess their contribution. The final synthesis comprised 17 empirical or theoretical sources and three court or official review sources.

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3. Decisions under narrowing conditions

The review traces three connected changes in the conditions surrounding an ordinary decision. Repeated interference removes a practical option, and a credible threat makes resistance appear unsafe even when physical harm is anticipated rather than immediate. These effects may then spread across areas of life and persist beyond the original interaction.

3.1. Narrowing the next choice through everyday interference

Material options may narrow first. In a qualitative study of 15 Australian survivors, one participant reported that her partner repeatedly took her car shortly before she needed it for work or a family event. He said he would return within five minutes but stayed away for hours. She was repeatedly late and eventually lost more than one job. The immediate restriction concerned transport, but its effects extended to attendance, employment, income, and the resources available for later decisions [5]. R v Richards [2022] EWCA Crim 1470, decided by the England and Wales Court of Appeal (Criminal Division), illustrates how a relationship can alter the meaning of an ordinary restriction. The judgment records the prosecution case and C's evidence concerning restrictions on her make-up, clothes, bathing, family contact, and access to her own telephone. These occurred alongside threats, property damage, physical assaults and sexual violence. The judgment also records Richards' threat to pour boiling water on C if she was not quiet. C explained that she did not try to stop one sexual offense because she was afraid. Richards was much larger than she was, and she did not want to confront him. At least one decision was therefore directly connected to anticipated danger [6].

Generally, the physical and sexual offenses remain distinct harms. Within the relationship, however, these harms shaped the conditions under which ordinary choices were made. Under Dutton and Goodman's model, these harms made the possible costs of resistance credible. Punishment did not have to recur at every decision because the expected consequence could already shape which option felt safe enough to choose. Richards' cases therefore make the connection between a rule, an anticipated cost, and a decision visible [2, 6].

The longitudinal study by Sharp-Jeffs et al. extends the timescale. It followed 100 women who had used domestic violence services over three years. Its measures covered decisions and activities involving children, friends, community life, safety, finances, and help-seeking. In particular, the women's range of action expanded after separation, but gradually and unevenly. Post-separation abuse, financial insecurity, housing problems, and legal disputes continued to constrain some participants' capacity to act while resources and safer options were gradually rebuilt [7].

Together, the car account shows how repeated interference can reduce material capacity [5]. The Richards case shows how a documented threat environment can make resistance carry an anticipated cost [6]. Sharp-Jeffs et al. illustrate how restricted action can persist and spread [7]. These altered conditions create the setting in which accommodation may subsequently be reinforced. On the one hand, some options have become harder to carry out. On the other hand, others remain possible in principle but are less safe to choose.

3.2. Distress alongside meaningful risk appraisal

Repeated adjustment also carries a psychological cost. Richardson et al. interviewed 3,010 women in rural Rajasthan and re-interviewed them about 18 months later. Mental distress was measured with the 12-item General Health Questionnaire (GHQ-12). Within-person changes in exposure to psychological abuse were associated with 0.65 additional distress symptoms, 95% confidence

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interval (CI) [0.32, 0.98]. Changes in exposure to controlling behavior were associated with 0.31 additional symptoms, 95% CI [0.18, 0.44]. The fixed-effects models adjusted for measured changes such as wealth and other forms of abuse. Compared with a cross-sectional survey, this design provides stronger evidence about temporal covariation but does not establish causation. However, evidence from this rural cohort cannot support universal conclusions [8].

These findings indicate psychological burden, not decision-making incapacity. A person deciding whether to refuse a demand may be balancing two temporal horizons. Resistance may protect autonomy over time while increasing danger that evening. Accommodation may reduce the immediate risk while making later independence more difficult. Judging the decision only by its long-term cost can make the short-term choice appear irrational because that judgment leaves out the immediate consequence the survivor sought to avoid. A separate prospective study tested risk appraisal by comparing survivors' forecasts with later re-abuse. Bennett Cattaneo, Bell, et al. asked 246 women seeking help for intimate partner violence to estimate their likelihood of physical re-abuse and then followed them for 18 months. Forecasts were classified as accurate in 66% of cases, and the sample showed no general optimistic or pessimistic bias. The study also compared a one-year forecast with outcomes collected 18 months later. Even with this difference in timing, the result challenges the assumption that continued accommodation necessarily reflects a failure to perceive danger [9]. A survivor may recognize that the relationship is harmful while judging that resistance carries a credible immediate cost.

The available options may carry risks on different timescales. Immediate calm may come at the expense of future freedom, and disclosure may carry a risk of retaliation. Distress makes this calculation harder without making it meaningless.

3.3. Help-seeking as a risk decision

A survivor may recognize coercive control without seeking help. Seeking help is itself a decision shaped by uncertain risks, available resources, and expected responses. Boxall and Morgan surveyed 15,000 Australian women and analyzed the 1,023 respondents who met the study's operational threshold for coercive control during the previous three months. Among women who also reported physical or sexual violence, 44% sought advice or support from police, and 46% used a government or non-government service. Among women who did not report physical or sexual violence, the corresponding figures were 10% and 13%. These rounded percentages imply absolute between-group differences of 34 and 33 percentage points, respectively. Moreover, 51% of the latter group sought no help from any source, compared with 25% of those who also reported physical or sexual violence, a 26-percentage-point difference. As a result, formal help was used much less often when respondents did not also report physical or sexual violence. Although the difference is substantial, the survey was cross-sectional and conducted during the coronavirus disease 2019 (COVID-19) lockdown period [10].

Fear of escalation, restricted privacy, limited-service access, and lower perceived usefulness may also explain this difference. Help-seeking also changes over time. Bennett Cattaneo, Stuewig, et al. followed 406 intimate partner violence victims for one year. During follow-up, 80% sought additional help. Legal and extralegal help-seeking decreased together and varied with time-specific events such as renewed abuse. Stable personal characteristics were less informative. These findings indicate that help-seeking is not a single disclosure. It can stop, restart, or move to another channel as risks and responses change [11].

The official record concerning Shana Grice's murder shows how an earlier institutional response may affect a later risk calculation. Between February and July 2016, Grice, or people acting for her,

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made five complaints to police about Michael Lane. After Lane showed officers private messages indicating a sexual relationship, police treated Grice as having supplied false information and fined her for wasting police time. Mr. Justice Green later identified three potentially serious consequences: subsequent complaints were treated with skepticism; people close to Grice later said that she stopped reporting some stalking because she expected not to be believed; and the judge considered that Lane may have concluded that police were unlikely to stop him. Further reports concerned a stolen key used to enter her bedroom at 6 a.m., silent calls, and Lane following her. The incidents were classified as low risk. Lane murdered her six weeks later. When disclosure is met with disbelief, blame, or ineffective protection, the institutional response may shape the next risk calculation and make silence appear safer even when danger is recognized [12].

The preceding section describes the conditions under which the proposed loop could operate: choices narrow, psychological burden grows, and help-seeking depends on changing circumstances and may recur. The following section examines the hypothesized process that might connect these outcomes by asking what consequence the cue signals, what accommodation prevents, and how later calm changes the event's interpretation.

4. Why is the loop hard to see

4.1. The visible act and its hidden relational history

Observers often see only the current act and not the relational history that gives it coercive meaning. A location question can express concern. Flowers can express affection. A request to talk can be reasonable. However, the same acts have a different meaning when earlier refusals have produced interrogation, humiliation, surveillance or punishment. In this sense, the act is visible, while the rule attached to it is not.

The Domestic Homicide Review concerning Alice Ruggles shows how an ordinary object acquires a different meaning within a sequence. After Ruggles ended the relationship, Trimaan Dhillon repeatedly contacted her, attempted to access online accounts, contacted people around her, and appeared unexpectedly. On 30 September 2016, he told her by phone that he was in Edinburgh while he was outside her home in Gateshead. He knocked twice at her front door, moving out of view each time, then entered the garden, knocked on her ground-floor bedroom window, and left flowers and chocolates on the sill. He later left a voicemail asking her to call and sent a text saying that he had been in the garden since 5 p.m. Shortly after midnight, he left another voicemail in which he repeatedly denied wanting or intending to hurt her. Within this sequence, the flowers and chocolates signaled hidden access, deception, and continued reach rather than ordinary affection. Specifically, the evidence against an innocent interpretation is spread across earlier interactions, messages, records, and witness accounts. Although a later homicide would make the pattern clearer in hindsight, the earlier evidence gives the sequence its meaning [13].

Furthermore, experimental evidence can clarify how visible cues shape observer judgments, but it cannot reproduce survivors' decisions under coercive conditions. Capezza and Arriaga randomly assigned 212 college students to versions of a marital-conflict vignette. The husband's physical aggression was absent, low or high, while psychological aggression was low or high. Manipulating physical aggression reliably changed ratings of negativity and severity, whereas changes following psychological aggression were less consistent. By comparison, the physical cue may simply have provided clearer evidence of harm, whereas participants may have been less likely to recognize psychological aggression as harmful [14].

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Likewise, institutional records may reproduce this blind spot by recording separate incidents without preserving the cumulative meaning of repeated control. Kim and Karystianis analyzed free-text narratives for 526,787 police domestic-violence events recorded in New South Wales between 2009 and March 2020. Their system extracted 852,162 potentially coercive behaviors. At least one appeared in 57% of events, and 8% contained three or more behavioral subcategories. Depending on the behavior, text analysis identified 30%–60% more events than fixed categories did. Yet adding these variables to the standard prediction model barely changed performance: accuracy rose from 84.6% to 84.8%, the area under the receiver operating characteristic curve remained 0.83, precision remained 0.17, and recall fell from 0.52 to 0.51. Moreover, 6.7% of persons of interest had another violent domestic-violence event within 12 months; the report's no-recurrence prediction was 93.5% accurate. Free-text analysis therefore identified recorded coercive behaviors omitted from fixed categories, but it did not materially improve forecasts of future violence [15].

Here, missing history is only the first blind spot. Even when that history is known, punishment may not recur because the survivor has already adjusted their behavior to avoid it.

4.2. Accommodation and the disappearance of enforcement evidence

A controlling interaction may be least visible when it succeeds. If refusal produces a threat or punishment, the consequence can be reported. When a survivor changes a plan, responds immediately, apologizes, or stays home to manage anticipated risk, tension may subside, and the accommodation may then look like ordinary agreement. An observer then sees a quiet evening instead of the event that the survivor was trying to avoid. However, the absence of escalation can be mistaken for the absence of pressure.

Interview data from Choudhury and Luzón provide survivor accounts relevant to this sequence. They interviewed 14 women who identified as survivors of coercive control. One participant described how an earlier adverse response became a precedent for expecting the same reaction to later challenges or refusals, which shaped what she did next. Another participant described moving quietly over noisy floorboards and covering a kettle with a towel while her partner slept. Those hours brought her the only peace she felt she had, although she remained alert to what might happen next. The interviews therefore document conflict, anticipated consequences, and behavioral accommodation in survivors' accounts [16].

Laboratory evidence can assess the narrower learning process that makes the proposed relational mechanism psychologically plausible. Fisher and Urcelay conducted five experiments in which participants learned to make a response that prevented an aversive outcome and produced a signal previously associated with safety. They were then tested with new, ambiguous cues while the aversive outcome was no longer presented. Participants made more avoidance responses when the response produced the learned safety signal in Experiments 1, 3, 4, and 5, but not in Experiment 2. The first experiment analyzed data from 72 participants. The null result in Experiment 2 occurred under a modified control condition in which the trained and control signals differed only in color. This null result suggests that any effect may depend on how readily the trained and control signals can be distinguished. These experiments provide causal evidence that a learned safety signal can strengthen avoidance, but the outcomes were images or a loud sound rather than interpersonal retaliation. Because relationship decisions also involve attachment, finances, children, social norms, and genuine danger, the experiments support psychological plausibility rather than direct real-world equivalence [17].

These findings suggest that, in some psychologically abusive relationships, the return of calm may negatively reinforce accommodation. The proposed mechanism concerns the relief that follows

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accommodation; it does not suggest that calm itself supports coercion or that every instance of accommodation is learned in this way. Relief may maintain accommodation by increasing the likelihood of the same response when a similar cue recurs [3, 16, 17]. Once calm returns, the interaction still requires interpretation.

4.3. Reinterpreting constraint after calm returns

This account uses cognitive dissonance theory to explain how an episode is interpreted after calm returns. Immediate accommodation lies outside that explanation. A person may believe that the relationship is loving and that personal choices remain free while changing behavior to prevent a partner's reaction. Resolving the resulting contradiction does not necessarily require leaving the relationship. Instead, the event could be described as mutual conflict, a stressful day, a reasonable request, or an overreaction by the survivor. When calm follows accommodation, it can lend credibility to the minimizing explanation and weaken the apparent evidence of constraint. The changed decision then appears to be a compromise rather than an action taken to prevent an expected consequence [4].

Arriaga et al. tested whether standards for judging partner aggression change with relationship experience. Their first two studies, with 689 participants in total, found that current experience of aggression and stronger commitment were associated with greater tolerance of common aggressive acts. A subsequent longitudinal study followed 52 people who had not experienced partner aggression at baseline. Importantly, among those for whom aggression later began, highly committed participants adopted more tolerant standards. Among highly committed participants, the post-onset increase in tolerance weakens an explanation based solely on pre-existing tolerance or partner selection. In a further experiment with 73 participants currently experiencing aggression, highly committed participants were more tolerant of the same acts when they imagined the acts performed by their own partner rather than by a stranger. Across these studies, tolerance standards appeared responsive both to the onset of aggression and to whether the imagined actor was a partner or stranger. Commitment may index attachment or investment, but it is not equivalent to dependence or the anticipated cost of leaving. The results are consistent with relationship-specific reinterpretation [18].

Qualitative accounts further show how reinterpretation may weaken the evidence available to the survivor herself. Hailes and Goodman interviewed 14 intimate partner violence survivors about gaslighting. Participants described attacks on their confidence in memory, perception, judgment, and personal needs. They also described a lasting loss of self-trust. These accounts do not establish that participants' memories became objectively inaccurate. Instead, they describe how a person may sense that something is wrong yet doubt whether that feeling justifies action [19].

Sometimes, minimization may be strategic rather than sincere. Gaslighting is an interpersonal tactic, whereas cognitive dissonance reduction is an intrapersonal interpretive process. A survivor may minimize an event to prevent escalation, protect children, preserve housing, or obtain help from an institution that responds poorly to complex accounts. The partner may also have shown a real period of remorse or improvement. Critically, cognitive dissonance offers one possible pathway to reinterpretation rather than a complete account of it [4]. Likewise, reinterpretation may blur the meaning of a decision without determining whether help is sought. Dannisworo et al. followed people currently experiencing partner violence across three waves spaced three weeks apart. The sample fell from 335 to 286 and then 261 participants, representing 22.1% attrition by Wave 3; this alone does not establish attrition bias. Across the full sample, justification of the partner's violence was not associated with perceived need for support or actual help-seeking. Among men, an

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exploratory pattern was consistent with lower help-seeking, but the moderation analyses were not confirmatory. Safety, resources, service access, and violence frequency may carry more weight, although direct comparisons are needed [20].

These sources provide evidence for separate parts of the proposed process but do not directly test the complete cycle. Qualitative studies document precedent, anticipation, and self-doubt [16, 19]. Experiments report that visible harm changes observer judgments and that learned safety signals can maintain avoidance in controlled tasks [14, 17]. Longitudinal studies record changes over time in exposure, tolerance, and help-seeking [8, 11, 18, 20], while official records provide examples of history and institutional responses entering later decisions [6, 12, 13]. Specifically, among the sources identified for this review, no prospective intimate-partner study measured the complete repeated sequence within the same relationships: cue, forecast, accommodation, relief, later explanation, and the next response. Table 1 therefore maps each proposed link to its closest evidence and principal inferential boundary.

Table 1. Evidence-chain matrix for the proposed invisible-reinforcement process

Proposed link	Closest evidence (design and sample)	Evidence contributed	Primary inferential boundary
Practical options narrow before the focal choice	Kassing and Collins: qualitative questionnaires, 15 Australian women; R v Richards [2022] EWCA Crim 1470; Sharp-Jeffs et al.: 100 service-using women followed for 3 years [5-7].	Repeated interference was linked to employment loss; a documented threat environment gave refusal an anticipated cost; space for action recovered gradually and unevenly after separation.	Self-selected or service-using samples and an appellate record cannot estimate prevalence or isolate causation; no event-level test links a specific constraint to the next accommodation.
Distress can coexist with meaningful risk appraisal	Richardson et al.: two-wave cohort, n = 3,010; Bennett Cattaneo, Bell, et al.: prospective help-seeking sample, n = 246 [8, 9].	Within-person exposure changes tracked distress changes; 66% of risk forecasts were classified as accurate, without overall optimistic or pessimistic bias.	Both studies are observational; the risk study used help-seekers, had attrition, and compared a 1-year forecast with outcome data gathered 18 months later.
Help-seeking is conditional and repeated	Boxall and Morgan: national survey, N = 15,000; coercive-control subgroup, n = 1,023; Bennett Cattaneo, Stuewig, et al.: 1-year follow-up, n = 406; R v Lane: Statement—Independent Police Complaints Commission (IPCC) Investigation [10-12].	Police advice or support and service-use gaps were 34 and 33 percentage points; no help was 26 points higher without reported physical or sexual violence. During follow-up, 80% sought further help.	Unadjusted COVID-19 period contrasts do not identify why groups differed; all longitudinal participants had already sought help; a judicial statement illustrates one sequence, not a general effect.
History can be absent from the current act or record	Gateshead Community Safety Board; Capezza and Arriaga: randomized vignette, n = 212; Kim and Karystianis: 526,787 police-event narratives [13-15].	Relational history altered the meaning of an ordinary gift; physical aggression changed observer judgments more consistently than psychological aggression; text mining detected behaviors missed by fixed categories.	The case is illustrative, vignette ratings are not survivor decisions, and police text measures what was recorded. Adding the text-mined variables did not materially improve 12-month prediction metrics.

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Table 1. (continued)

Accommodation can be followed by a safety-associated outcome	Choudhury and Luzón: grounded-theory interviews, n = 14; Fisher and Urcelay: five avoidance experiments, analyzed sample sizes ranged from n = 41–74 [16, 17].	Survivors described precedent, anticipation and behavioral adjustment; trained safety signals increased avoidance in 4 of 5 controlled experiments.	The interviews were retrospective; the experiments involved non-interpersonal aversive outcomes. Experiment 2 was null when trained and control signals were similar.
Calm may facilitate reinterpretation or reduced self-trust	Arriaga et al.: two cross-sectional studies (n = 689), longitudinal n = 52 and experimental n = 73; Hailes and Goodman: interviews, n = 14; Dannisworo et al.: n = 335 → 286 → 261 [18-20].	Tolerance standards shifted after aggression among highly committed participants; survivors reported loss of self-trust. In the full Dannisworo sample, justification did not predict support need or help-seeking.	These studies do not directly test cognitive dissonance or calm as a mediator; commitment has competing meanings; the full-sample null result limits any universal reinterpretation-to-help-seeking claim.
The full repeated loop may operate within relationships	No source discussed in this review prospectively measured cue → forecast → accommodation → relief or non-occurrence → later explanation → next response in the same relationships.	The sources provide evidence for discrete links, psychological plausibility, and boundary conditions.	The complete temporal mechanism remains an untested, bounded hypothesis.

Note. Sources differ in population, design, exposure, outcome and unit of analysis; sample sizes therefore must not be pooled. Court judgments and domestic homicide reviews are contextual sequence records, not statistical tests. 'No source' refers to the purposively selected sources discussed in this narrative review, not to an exhaustive systematic search.

5. Discussion and limitations

The evidence reviewed here supports different parts of the proposed account to different degrees. Empirical studies and official records provide comparatively direct evidence for constrained options, anticipated consequences, behavioral adjustment, and changing help-seeking [5-13, 16, 18-20]. Experimental research supports the psychological plausibility of avoidance being maintained by safety-associated outcomes [17]. However, no identified study directly demonstrates the complete interpersonal reinforcement sequence. Material dependence and relationship commitment may explain accommodation independently or alongside the proposed process [7, 18]. Prospective studies might need to measure these competing accounts within the same relationships and prespecify findings that would weaken each one. Otherwise, invisible reinforcement risks becoming an after-the-fact explanation. Table 2 sets out the required prospective test.

Table 2. Prospective measures, predictions and hypothesis-challenging patterns

Stage	Candidate measure and timing	Within-person prediction	Pattern that would weaken the link / key alternative
Prior consequence history	A baseline safety-centered timeline records prior refusals and consequences by type and frequency, plus cue similarity; updates follow each event.	A stronger and more similar refusal-to-adverse-consequence history predicts higher anticipated risk at the next cue.	Risk forecasts do not differ between cues with and without relevant history. Alternatives: trait anxiety or prior trauma.

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Table 2. (continued)

Current cue	At event onset: cue type, explicitness or ambiguity (0–10), monitoring or proximity, and contextual similarity.	History moderates the cue effect: after a stronger history, more ambiguous cues predict forecast and accommodation.	The history-by-ambiguity relation is absent with adequate exposure and power. Alternative: general conflict frequency.
Anticipated consequence	Before response, or as close as safely feasible: expected probability (0–100), severity (0–10), confidence, timing and type.	Expected probability and severity statistically account for part of the history-to-accommodation relation.	Forecasts do not predict response or do not vary with history. Alternative: a stable response habit unrelated to anticipated danger.
Feasible options	Daily and event-level: number of safe options; access to transport, money, housing, private communication, childcare and support.	Fewer safe or feasible options independently increase accommodation and may moderate history effects.	The history–forecast–accommodation associations disappear after constraints are measured, leaving reinforcement with no incremental explanation. Alternative: material dependence.
Immediate response	At the event: refuse, negotiate, delay, accommodate or seek help; change from the prior plan; response latency.	Higher anticipated risk and fewer feasible options predict greater or faster accommodation.	Only between-person differences appear, with no event-to-event change within individuals. Alternatives: preference change or ordinary compromise.
Immediate consequence or relief	Minutes to hours later: retaliation occurrence and type; pre-post tension or safety rating; onset and duration of calm; whether the forecast event occurred.	Accommodation is more often followed by tension reduction or non-occurrence, and that outcome predicts the next similar response.	Relief is equal after refusal and accommodation or does not predict the next response. Alternative: the partner's independent mood change.
Later interpretation and self-trust	The same evening or next day: perceived voluntariness, normalization, self-blame, certainty and self-trust.	Accommodation plus relief predicts more normalizing interpretation or lower certainty, beyond baseline commitment.	Interpretation consistently precedes events and does not change after them. Alternatives: attachment, commitment or investment.
Next similar decision	At the next comparable cue: response type, plan change and latency.	Prior accommodation plus relief increases the probability or speed of subsequent accommodation.	No lagged within-person effect remains after baseline and time-varying constraints are controlled. Alternatives: violence escalation, children, housing or service access.

Note. Null or contrary findings should weaken a link only when measurement, exposure, and statistical power are adequate, and when missingness and safety-related selection have been addressed. Prospective studies should use a safety-centered, event-contingent design with scheduled follow-up and lagged multilevel analysis. They must never instruct participants to resist a partner or provoke danger. Participant-controlled prompts, discreet notifications, data minimization, and a rapid-exit option are essential when a partner may monitor the device.

Meanwhile, the evidence cannot establish variation by gender or sexuality, and remains limited for adolescents, older adults, disabled people, migrants, and racialized minorities. Thus, oversampling these groups would permit moderator analyses. Moreover, studies measured

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anticipation, adjustment, tolerance, or commitment but did not isolate attachment [16, 18]. Commitment and continued contact cannot distinguish attachment from material dependence, anticipated danger, or reinforced relief. Also, neither Richardson et al. nor Hailes and Goodman tested personality or mental disorder as explanations for coercion or accommodation [8, 19]. In particular, inferring disorder from accommodation or continued contact would exceed the data, pathologize survivors, potentially excuse perpetrators, and obscure the relational pattern.

Furthermore, recognition and intervention may need to address the relational sequence, later interpretation, and external constraints. A survivor-led timeline could reconstruct this sequence. Therefore, safe documentation and repeated risk review might reveal controlling patterns while respecting changing risk forecasts and help-seeking [9, 11]. Therapeutic work could rebuild self-trust, while material support is also needed to reduce the practical costs of resistance [7, 19]. These theoretically derived proposals require evaluation for safety, acceptability, and unintended effects.

Friends and relatives should pay attention to altered plans, carefully managed routines, vigilance around ordinary cues, and relief after accommodation [16]. None of these signs establishes coercive control by itself; their meaning depends on the relationship's history and the consequences attached to resistance. Support should center on non-judgmental questions, continued contact, and survivor-led help instead of criticism or forced disclosure. Institutions should link records so that apparently minor or disconnected events can be assessed as a pattern, while keeping pattern detection distinct from prediction [15]. Private, low-pressure routes for disclosure should remain available. Withdrawal from services, apparently inconsistent accounts, apparently voluntary plan changes, or a return to the relationship should prompt inquiry into anticipated consequences and feasible alternatives rather than automatic disbelief.

6. Conclusions

The discussion returns to the folded towel on the table. The decisive consequence occurred years earlier. When the towel appears again, the response looks voluntary, and no new threat is made. Invisible reinforcement offers a testable way to study that hidden history, but the evidence reviewed here does not establish that the process occurred. Prospective research needs to illustrate whether the model predicts later accommodation beyond credible alternatives. Until then, the model is best used to guide inquiry rather than as a diagnosis or an after-the-fact explanation of behavior. Additionally, recognition is most useful when it helps widen safe options while leaving immediate risk judgments with the survivor. In the towel example, the past remains present in a choice that appears free.

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