

Online Supplemental Materials

Facilitating Autonomy in Interdependent Relationships: Invisible Support Facilitates Highly
Avoidant Individuals' Autonomy

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1. Sample Information and Power

These types of dyadic studies are time and resource intensive which has two important implications. First, sample sizes are necessarily constrained. The target sample size for this large project was 100 couples involving 200 dyadic support interactions based on existing research on dyadic support processes at the time of design. Power analyses using the Actor-Partner Interdependence Model (APIM) power module (Ackerman, Ledermann, & Kenny, 2016) indicates this sample and design (200 support interactions) provides ample power (.95) to detect small ($r = .20$) actor and partner main effects when variables are moderately correlated across partners ($r = .30$). This fairly represents the context and the size of the interaction effects reported in the current study.

Second, these studies are designed to examine multiple, independent processes (as is necessary and appropriate; see APA manual, p. 14). Analyses of the support interactions presented in this study have been used previously to explore the associations between attachment insecurity, sexist attitudes, and different types of support provision and seeking (*removed for blind review*). However, the specific aims and measures central to the current paper are completely novel and independent of the prior studies. No prior studies have reported or examined assessments of invisible support or autonomy, and no prior studies have examined how attachment avoidance and invisible support are associated with longitudinal assessments of autonomy and commitment. Thus, the aims and results presented are completely novel and independent of the prior studies.

2. Coding Visible and Invisible Support

Visible and Invisible Support Coding Schedule (VISCS)

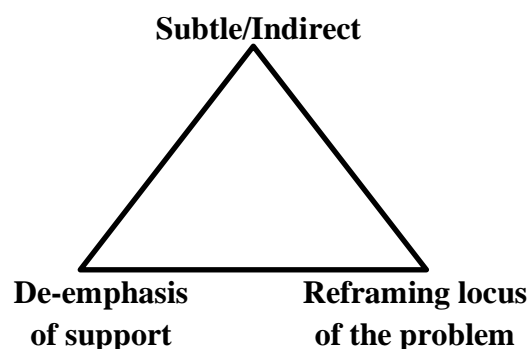
This coding schedule extends Howland and Simpson's (2010) pioneering coding procedure to identify specific types of visible and invisible support behavior. Integrating themes highlighted by Howland and Simpson (2010), three overarching principles were identified that describe the nature and aims of invisible versus visible support (described below). These principles, and detailed analysis of video-recorded support interactions, guided the generation of categories of visible and invisible forms of support, and associated behavioral exemplars (outlined below). All of the behaviors can be conceived of as relevant to the verbal and non-verbal responses of a partner in a position to provide support.

Each category of support is coded globally, with coders taking into consideration the various behaviours associated with each category. Each couple member is rated according to the extent to which they exhibit the category of support applying inference rules to score: low = 1-2, moderate = 3-5, high = 6-7. Coders need to take into account the frequency, intensity and duration of behaviors associated with each category within the entire interaction.

Overarching Principles Distinguishing Visible from Invisible Support

The overarching principles describing **Invisible Support** are defined in OSM Table 1, along with the underlying aims of the support behaviour. Although the aims imply intention, the behaviors are coded without inferring intention or whether the behavior was effective in. The table also clarifies what invisible support is not to rule out potential 'unsupportive' behaviors.

The three principles are not equal in importance but are best conceptualized as a triangular hierarchy. The strategic provision of support in a *subtle manner* takes precedence in differentiating between visible and invisible support (i.e., the tip of the triangle). Subtle indirect support behavior *must* be present to code invisible support, and the other types of behaviors (de-emphasis of support recipient versus provider roles and reframing the locus of the problem away from the recipient) may or may not be both present.



Visible support can be understood as the polar opposite of each principle, including:

1. Strategically providing support in direct and overt ways,
2. Emphasizing or making distinct the roles of the support provider and support recipient by guiding the direction and course of the discussion, and
3. Focusing specifically on the support recipient and *their* problem, issue or goal.

OSM Table 1. Overarching Principles Describing Invisible Support

1. Subtle and indirect nature of support provision	<p>Description. Strategically providing support in subtle, indirect or round about ways.</p> <p>Aim. To avoid making the support recipient feel like they are receiving support.</p> <p>What it is not. It is not indirect behaviours that imply shared understanding between the support provider and recipient (e.g., inside jokes) or are enacted without strategic attempts to be subtle.</p>
2. Provider de-emphasizes the roles of support provider and support recipient	<p>Description. Shifting the focus of power and control off the support provider by using more equal and conversation-like interactions.</p> <p>Aim. To avoid feelings of lack of competence and indebtedness by empowering the support recipient in <i>their</i> ability to cope with and overcome the stressor (rather than the support provider's abilities to guide the recipient through it).</p> <p>What it is not. It is not the disengagement or disinterest in support provision, or unintended support provision (e.g., asking for clarification due to confusion instead of asking guiding questions to facilitate the recipient's own solution generation).</p>
3. Reframing the locus of the problem away from the support recipient	<p>Description. Shifting the support recipient's focus off the difficulties they are experiencing to a broader shared view of similar experiences and how they can and have been successfully coped with by others.</p> <p>Aim. To increase the recipient's efficacy and control by illustrating how others have achieved results and coped, thereby allowing the recipient to gain insight into different solutions.</p> <p>What it is not. Not minimizing the problem, making downward comparisons or inferring a lack of competency in the recipient.</p>

3. Attachment Anxiety Effects

The aims and theoretical foundation of the study focused on the feelings of autonomy for individuals high in attachment avoidance whose difficulty balancing autonomy in interdependent relationships are most relevant. However, two unexpected interaction emerged for attachment anxiety across the 6 models presented in Tables 3 to 5, which were briefly discussed in the footnotes of the manuscript. We provide additional details here.

Invisible and Visible Support and Attachment Anxiety

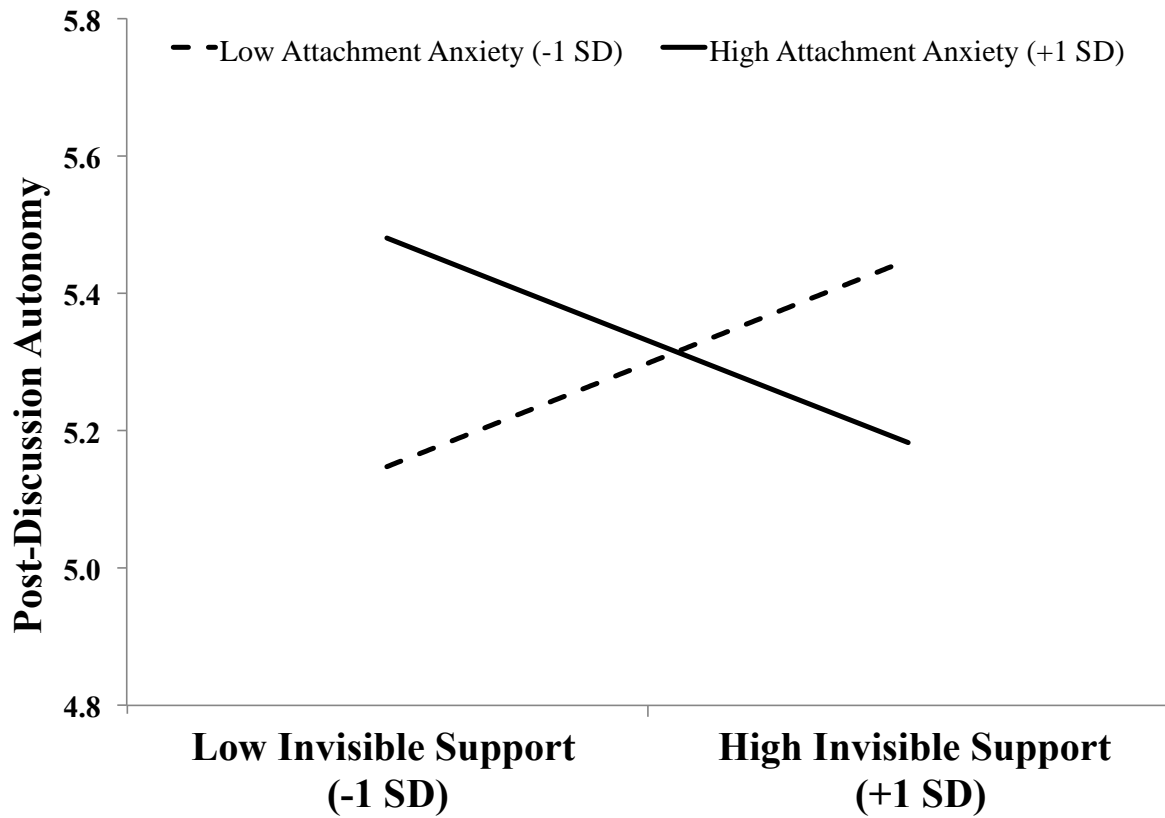
The interaction between partners' invisible support and attachment anxiety on post-discussion autonomy was significant (see Table 3). As shown in OSM Figure 2, compared to individuals low in attachment anxiety, highly anxious individuals reported greater post-discussion autonomy when their partners provided low invisible support ($B = .16, t = 1.84, p = .07$), but this difference was eliminated when partners' provided high levels of invisible support ($B = -.13, t = -1.36, p = .18$). However, the slopes for individuals both low ($slope = .13, t = 1.61, p = .11$) and high ($slope = -.13, t = -1.60, p = .11$) in attachment anxiety were non-significant. This pattern provides suggestive evidence that subtle and indirect invisible support during couples' discussions about personal goals may undermine immediate feelings of autonomy for individuals high in attachment anxiety who might require more explicit evidence of their partners' care as may be conveyed by direct, visible forms of support.

Lastly, a significant gender \times visible support \times attachment anxiety interaction revealed that the partners' visible support \times attachment anxiety interaction was marginally significant for men ($B = -.12, t = -1.97, p = .051$) and non-significant for women ($B = .06, t = 1.35, p = .18$). As shown in OSM Figure 3, at low levels of partners' visible support, men low in attachment anxiety experienced lower post-discussion autonomy compared to men higher in attachment anxiety ($B = .38, t = 2.65, p = .009$). However, as partners' visible support increased, men low in attachment anxiety felt greater post-discussion autonomy ($slope = .21,$

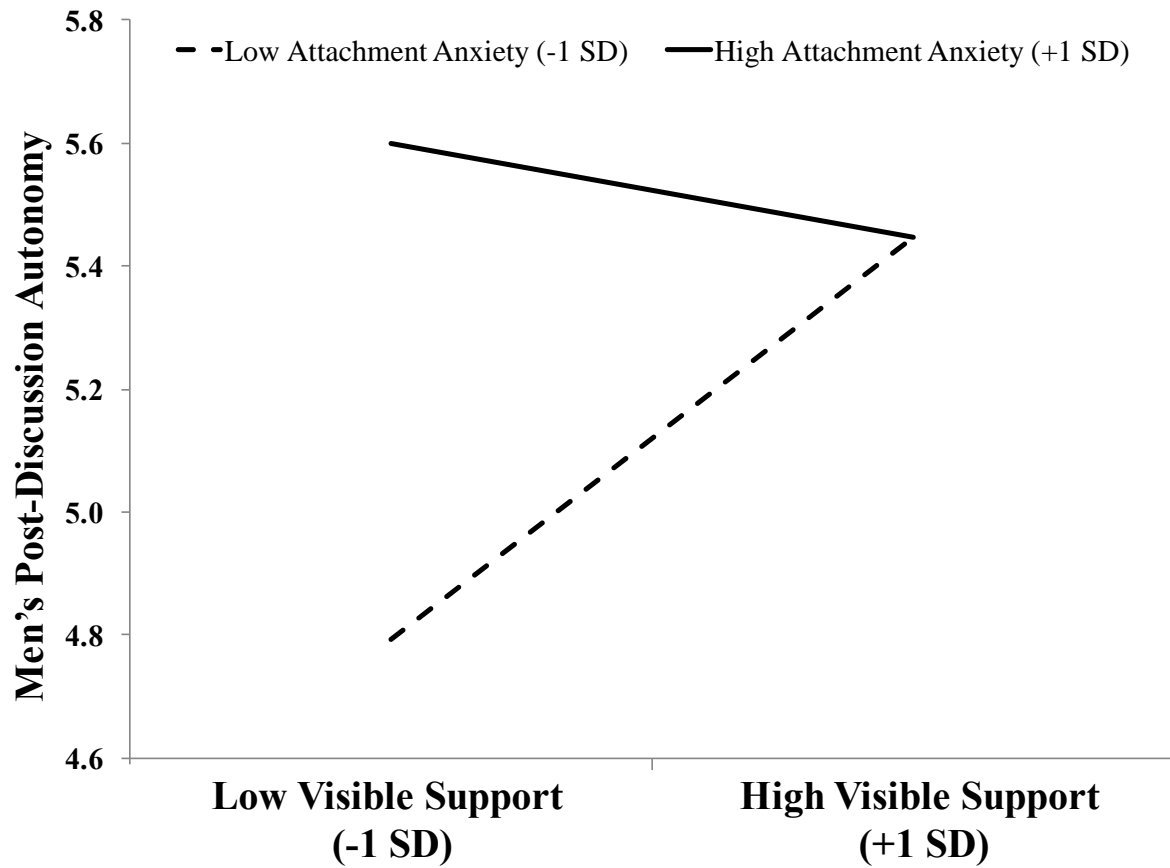
$t = 2.37, p = .02$), thereby eliminating the difference between low and high attachment anxiety at high levels of partners' visible support ($B = .00, t = .00, p = .998$). These results are consistent with prior work that the lack of visible support may be costly when individuals may want their partners' support (Girme, Overall & Simpson, 2013).

Summary

Taken together, these unexpected findings suggest that highly anxious individuals may be particularly attuned to a lack of overt demonstration that partners are available and willing to provide support. Thus, both a *lack* of visible support or high levels of invisible support may be detrimental to highly anxious individuals' evaluations during couples' support-relevant discussions because they both indicate the absence of explicit evidence of their partners' care and love.



OSM Figure 2. Interaction between individuals' attachment anxiety and partners' invisible support during couples' discussion of individuals' personal goals on individuals' feelings of goal-related autonomy immediately following couples' discussion (controlling for baseline levels of goal-related autonomy collected prior to the discussion).



OSM Figure 3. Interaction between men's attachment anxiety and women's visible support during couples' discussion of men's personal goals on men's feelings of goal-related autonomy immediately following couples' discussion (controlling for baseline levels of goal-related autonomy collected prior to the discussion).

4. References

- Ackerman, R.A., Ledermann, T., & Kenny, D. A. (2016). *Power analysis for the Actor-Partner Interdependence Model. Unpublished manuscript*. Retrieved from <https://robert-ackerman.shinyapps.io/APIMPowerR/>
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- Howland, M., & Simpson, J.A. (2010). Getting in under the radar: A dyadic view of invisible support. *Psychological Science*, 21, 1878-1885.