Attitudinal Ambivalence Toward Parents and Attachment Style

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Two studies tested whether children's attitudinal ambivalence toward their parents is related to their attachment styles within relationships. Across both studies, children who were ambivalent toward their father were less securely attached in their relationships than were children who were nonambivalent toward their father. Study 1 also showed that the relation between attitudinal ambivalence and secure attachment in relationships was independent of attitude valence, attitudinal embeddedness, attitudinal inconsistency, and attitudinal commitment. Study 2 demonstrated that the relation between attitudinal ambivalence and general attachment style was mediated by children's secure attachment to their father. There were similar relations between participants' ambivalence toward their mother and their attachment styles in relationships, but these relations were weaker and less consistent across studies. An explanation for the unique effect of ambivalence toward fathers is discussed.

> [Little Hans] was at that time in the Oedipus position, with its attendant feelings of jealousy and hostility towards his father whom nevertheless—except in so far as his mother was the cause of estrangement—he dearly loved. Here, then, we have a conflict due to ambivalence: a firmly rooted love and no less well grounded hatred directed against one and the same person. . . . Conflicts of this kind due to ambivalence are very frequent.
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> —Freud (1926/1948, p. 42)

People possess many feelings and beliefs that contribute to their attitudes, sometimes causing them to form attitudes that are simultaneously positive and negative (e.g., Little Hans's ambivalence toward his father). Such attitudinal ambivalence may be ubiquitous, making this construct an important topic in attitudes research (Eagly & Chaiken, 1993; Olson & Zanna, 1993; Petty, Wegener, & Fabrigar, 1997). Attitudes researchers have developed a variety of new techniques and procedures for assessing attitudinal ambivalence (Bell, Esses, & Maio, 1996; Cacioppo, Gardner, & Berntson, 1997; Glick & Fiske, 1996; Katz & Hass, 1988; Priester & Petty, 1996; Thompson, Zanna, & Griffin, 1995), and results have indicated that ambivalence is an important characteristic of attitudes toward a variety of attitude objects, including social groups (e.g., African Americans, women; Glick & Fiske, 1996; Katz & Hass, 1988), controversial issues (e.g., euthanasia, mandatory AIDS testing; Thompson et al., 1995), and food products (e.g., coffee, pizza; Maio, Esses, & Bell, 1997). The present article is among the first to examine the importance of attitudinal ambivalence in the domain of personal relationships and asks whether people's attitudinal ambivalence toward their parents predicts their attachment styles in relationships.

Attitudinal Ambivalence

To appreciate the relevance of attitudinal ambivalence to relationships, it is important to understand how attitudinal ambivalence is conceptualized, measured, and related to other attitude properties. Bell et al. (1996) provide a good example of the conceptualization and assessment of attitudinal ambivalence (see also Maio, Bell, & Esses, 1996; Maio et al., 1997; Maio, Esses, & Bell, 2000). Their starting point is the component view of attitudes, which states that attitudes are overall evaluations

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of attitude objects and that the evaluations are based on different components or sources of information (e.g., Eagly & Chaiken, 1993; Zanna & Rempel, 1988). Two important components of attitudes are feelings about an attitude object and beliefs about the attitude object (see Eagly & Chaiken, 1993; Zanna & Rempel, 1988). Ambivalence is therefore conceptualized both within and between the components. Bell et al. (1996) measure these components by asking participants to list the feelings and beliefs that they experience in response to the attitude object, and, for each response, participants rate the extent to which the response is positive or negative. To calculate intracomponent ambivalence, the positivity (sum of positive ratings) and negativity (sum of negative ratings) within each component is used to determine the extent to which there is a large amount of positivity and negativity in the component. To calculate intercomponent ambivalence, participants' net valence ratings (positive + negative) for each component are used to determine the extent to which the components are opposing in valence (e.g., positive emotions vs. negative cognitions) rather than similar in valence (e.g., positive emotions and positive cognitions). The intracomponent ambivalence and intercomponent ambivalence scores can then be averaged if the two sets of scores are strongly correlated.

The most important feature of ambivalence is that it directly reflects the extent to which there is conflict in an attitude, and many research findings reflect this feature. For example, studies have found that people who are ambivalent toward a group respond more favorably toward a group member when their positive feelings are primed than when their negative feelings are primed, whereas this differential response is weaker among people who are not ambivalent toward the group (Bell & Esses, 1997; see also Glick, Diebold, Bailey-Werner, & Zhu, 1997; Katz & Hass, 1988; Katz, Wackenhut, & Hass, 1986). This finding is consistent with the idea that ambivalent attitudes subsume a large amount of positive and negative attitude-relevant information, either of which can be made dominant by the situational context. In addition, ambivalence toward a group causes more careful processing of information about the group (Maio et al., 1996; see also Jonas, Diehl, & Brömer, 1997). This finding is consistent with theories stating that people find internal psychological conflict aversive (e.g., Berlyne, 1960; Festinger, 1957; see Hass, Katz, Rizzo, Bailey, & Moore, 1992; Monteith, 1996), and therefore, people should carefully process any information that has the potential to reduce their ambivalence.

Further supporting the idea that attitudinal ambivalence reflects evaluative conflict, ambivalent attitudes tend to be less extreme than nonambivalent attitudes (e.g., Bargh, Chaiken, Govender, & Pratto, 1992; Bassili, 1996). Of importance, however, attitudinal ambivalence uniquely assesses the conflict underlying attitudes, as revealed in a recent study (Maio et al., 1997) that measured intracomponent and intercomponent ambivalence together with 19 other properties of participants' attitudes toward a variety of food items (e.g., attitude certainty, attitude extremity, attitude-relevant knowledge). Factor analyses of participants' responses revealed five factors for each item: (a) ambivalence toward the attitude object, (b) commitment to the attitude (e.g., ratings of attitude certainty, attitude extremity; see Erber, Hodges, & Wilson, 1995), (c) knowledge about the attitude object (e.g., number of beliefs; see Wood, Rhodes, & Biek, 1995), (d) consistency between the attitude and the beliefs and feelings underlying one's attitude (e.g., evaluative-cognitive consistency; see Chaiken, Pomerantz, & Giner-Sorolla, 1995; Rosenberg, 1968), and (e) openness to alternative viewpoints (e.g., latitudes of rejection; Sherif, Sherif, & Nebergall, 1965). Thus, attitudinal ambivalence is distinct from other attitude properties.[1]

The Relevance of Attitudinal Ambivalence to Relationships: Attachment Styles

Most studies of attitudinal ambivalence have focused on ambivalence toward social groups and controversial issues. We believe that it is particularly important to extend the study of ambivalence to relationships (Fincham, Beach, & Kemp-Fincham, 1997; Fincham & Linfield, 1997). The investigation of ambivalence in relationships is interesting not only because people often speak about love-hate relationships (e.g., the famous aphorism "can't live with them, can't live without them"), but also because there may be relations between attitudinal ambivalence and what has recently become one of the most frequently studied constructs in the relationship domain—attachment style (see Reis & Patrick, 1996).

According to attachment theory (Bowlby, 1969, 1973, 1980), children learn complex emotions, cognitions, and behaviors that enable them to derive their needs from their primary caregiver. Among infants, this attachment style is assessed by examining their reactions to the Strange Situation, in which an experimenter temporarily separates an infant from his or her mother (Ainsworth, Blehar, Waters, & Wall, 1978). Infants who are willing to be close to their mother after separation and are easily comforted by her are classified as secure; infants who resist contact with their mother after separation and show little distress upon separation are classified as avoidant; infants who seek closeness while expressing anger and discomfort are classified as anxious-ambivalent. Presumably, these different behaviors reflect children's working models (i.e., mental perceptions and schemas) of the caregiver and of the self.

Secure children view their primary caregiver as warm and consistent and the self as competent and lovable, whereas insecure children (i.e., avoidant or anxious-ambivalent) view the other as unresponsive or inconsistent and the self more negatively (e.g., Bowlby, 1969, 1973; Collins & Read, 1990, 1994; see Shaver, Collins, & Clark, 1996, for a review).

Of importance, initial attachment experiences are thought to be the foundation of working models in general relationships (Bartholomew & Horowitz, 1991; Bowlby, 1969, 1973; Collins & Read, 1994; Hazan & Shaver, 1990). For example, people with secure attachment styles are comfortable with intimacy and are capable of reciprocal trust and independence, whereas those with insecure attachment styles display more distrust and fear of intimacy. In the Adult Attachment Interview (Main & Goldwyn, 1993), people are classified as secure when they have had negative or troublesome experiences with parents, but have come to understand the experiences and view their parents with respect. Theoretically, this respect entails a positive working model of the parents and a positive working model of other attachment figures in general (see Bartholomew & Shaver, 1998; Shaver et al., 1996). Indeed, Bartholomew (1990; Bartholomew & Horowitz, 1991) specified four general attachment styles that represent positive and negative working models of the self and others: secure, dismissing (i.e., avoidant/indifferent), fearful (i.e., avoidant), and preoccupied (i.e., anxious/ambivalent).

Although there is currently no direct evidence that these general attachment styles are derived from attachment to parents, there is evidence supporting the claim that the attachment patterns in infancy also are manifested later in life (e.g., Elicker, Englund, & Sroufe, 1992; see Shaver et al., 1996). Also, there is abundant evidence that general attachment styles are important: They predict many relationship outcomes and psychological states, including relationship commitment, relationship satisfaction, relationship stability, romantic jealousy, neuroticism, depression, anger, and sexual activity (see Shaver & Hazan, 1993, for a review; see also Carnelley, Pietromonaco, & Jaffe, 1994; Mikulincer, 1998; Sharpsteen & Kirkpatrick, 1997).

Nevertheless, attachment styles can be regarded as complex variables that are influenced by attitudes. For example, attachment theory proposes that children possess secure attachment to their primary caregiver when they associate the caregiver with positive emotions and beliefs, whereas children possess insecure attachment to the caregiver when they associate the caregiver with ambivalent emotions and beliefs or negative emotions and beliefs (see Collins & Read, 1994). Of importance, however, children should only rarely possess nonambivalent negative perceptions of the primary caregiver because, with few exceptions, the caregiver's role provides essential nurturance, which would make it difficult for children to entirely dislike their caregiver. Consequently, secure attachment should frequently reflect positive, nonambivalent attitudes toward the caregiver, whereas insecure attachment should reflect ambivalent (not nonambivalent negative) attitudes toward the caregiver. Thus, there should be a negative relation between ambivalence toward the caregiver and secure attachment to the caregiver. Moreover, if the caregiver does indeed provide the basis for working models of others, ambivalence toward the caregiver should be negatively related to general secure attachment.

Levy, Blatt, and Shaver (1998) found evidence partly consistent with this reasoning. They asked undergraduate participants to describe their perceptions of each parent and then scored the descriptions on many dimensions, one of which was attitudinal ambivalence. Results indicated that participants who were ambivalent toward their father exhibited less secure attachment than did participants who were nonambivalent toward him. A similar correlation was obtained between ambivalence toward the mother and secure attachment, although this correlation was significant for only the Hazan and Shaver (1987) measure of secure attachment and not the Bartholomew (1990) measure of secure attachment. Of interest, the correlations between ambivalence and the insecure attachment styles (e.g., avoidant) tended to differ across parents and attachment measures. For example, ambivalence significantly predicted anxious-ambivalent attachment only when ambivalence and attachment to the father was examined, and only for the Hazan and Shaver (1987) measure.

Although this initial evidence suggests that attitudinal ambivalence is indeed relevant to understanding attachment, a number of important issues remain unexplored. First, we do not have direct evidence about the relations between attitudinal ambivalence, as studied in the attitudes literature, and attachment. This is because no study has measured ambivalence toward parents using any of the direct measures of attitudinal ambivalence that have been developed in recent attitude research (e.g., Bell et al., 1996). This issue is relevant because research in the relationships domain has focused on phenomenological experiences of conflict, whereas research in the attitudes domain has mostly focused on assessing the objective indicators of ambivalence (i.e., simultaneous positivity and negativity). An interesting issue is whether the subjective experience of ambivalence accurately reflects the objective existence of ambivalence. In general, people's descriptions and recollections of their internal processes (e.g., ambivalence) are influenced by a variety of factors, such as their personal theories about how they should feel and the factors

that should influence their feelings (Bassili, 1996; Nisbett & Wilson, 1977; Ross, 1989; Schwarz & Clore, 1996). For this reason, it is not surprising that the correlations between objective measures of ambivalence and subjective reports of ambivalence tend to be moderate in magnitude (the correlations vary between approximately .10 and .50) (Priester & Petty, 1996; Thompson et al., 1995). Objective measures of ambivalence can at least partly circumvent many of the biases inherent in the subjective measures (Bassili, 1996). Therefore, it is important to examine the relation between such measures and the subjective experience of conflict in the attachment system.

Second, it is important to further examine Levy et al.'s (1998) interesting discovery of relatively weak relations between ambivalence and the insecure attachment styles (e.g., anxious). The weak relations with the insecure forms of attachment are counterintuitive and should be examined further. It is possible that they occurred because Levy et al. coded ambivalence from participants' self-reports, which may be distorted by reporting biases. Alternatively, the objective measures also might fail to predict the insecure attachment styles because the insecure attachment styles involve some degree of subjective distress that is not directly tapped by the objective measures. The present research tested whether the weak relations occur when an objective measure of ambivalence is used.

Third, the possible mechanisms that mediate the relation between ambivalence and attachment require examination. Presumably, attachment to one's parent should mediate the relation between ambivalence toward the parent and attachment to others. This mediating role should occur because the working model of the parent is used as the basis for the working model of others (e.g., Bartholomew & Horowitz, 1991; Hazan & Shaver, 1990). Furthermore, attachment to others should reflect the working model of the self that is developed from relationships with parents (e.g., Bartholomew & Horowitz, 1991; Hazan & Shaver, 1990). Thus, the relation between ambivalence and general attachment should be mediated by attachment to parents, which subsumes the working models that are presumably the foundation for general attachment.

Fourth, it is interesting to compare the extent to which ambivalence toward the father and ambivalence toward the mother influence attachment styles. Previous research has neither tested whether ambivalence toward the father and ambivalence toward the mother are independent predictors of general attachment style nor whether these variables predict attachment through different mediating mechanisms. It is possible, for example, that ambivalence toward the mother does not exert effects that are independent of ambivalence toward the father. Consistent with this possibility, a meta-analysis of infant behavior in the Strange Situation has revealed significant concordance in the attachment styles that are exhibited toward mothers and fathers (Fox, Kimmerly, & Schafer, 1991; see also Lamb, 1981). Indeed, researchers have called for more research on the role of fathers in child development and socialization (Lamb, 1975; Phares & Compas, 1992; Rohner, 1998).

It is even possible that ambivalence toward the father predicts general attachment more strongly than does ambivalence toward the mother because fathers assume different roles for children (e.g., Lamb, 1981). In particular, Parsons and Bales (1955) suggested that fathers' behavior with their children is more action-oriented, including a focus on competence and achievement behaviors. A key feature of this perspective is that fathers serve as the child's principal link between their family system and the social world outside of the family. Consistent with this notion, Abelin (1980, as cited by Mächtlinger, 1981) proposed that fathers offer young children "a stable island of practicing reality" (p. 153). Given such arguments, ambivalence and attachment to fathers may influence general attachments more strongly than does attachment to mothers. This provocative hypothesis merits empirical examination.

Fifth, research has not examined the relation between ambivalence and attachment in children, for whom relationships with parents are especially important. In particular, it has been suggested that young teenagers are in an interesting period of transition (Hazan & Zeifman, 1994), which includes a gradual development of attachment to peers. Thus, it is interesting to examine the extent to which ambivalence toward parents predicts general attachment during this transition.

Sixth, and perhaps more important, previous research has not shown whether the relationship between ambivalence and attachment occurs independently of other properties of attitudes toward their parents. It is important to test this hypothesis because ambivalence should be at least somewhat correlated with other attitude properties (Bargh et al., 1992; Maio et al., 1997). For example, there should be a negative relation between attitudinal ambivalence and attitude valence because people who are ambivalent toward their parents view them both positively and negatively, whereas most people who are not ambivalent toward their parents should view them positively. Nevertheless, the aversive quality of ambivalence may cause ambivalence to exert unique effects in the context of relationships. In relationships, people might reduce ambivalence toward a person by maintaining psychological distance from the person. Theoretically, this ambivalence-based mecha-

nism is distinct from mechanisms that would be associated with different attitude properties, such as the motivation to maintain psychological distance from someone who is disliked.

STUDY 1

Study 1 tested the hypothesis that children's ambivalence toward their parents predicts general attachment styles, independent of other attitude properties. To test this hypothesis, we measured children's attachment styles and a range of properties of their attitudes toward their parents: attitude valence, attitudinal ambivalence, attitudinal commitment (e.g., attitude extremity), attitudinal embeddedness (e.g., the number of attitude-relevant beliefs), and attitudinal inconsistency (e.g., evaluative-cognitive consistency). We expected that any observed relations between ambivalence and general attachment styles would be independent of the other attitude properties, consistent with previous findings that attitudinal ambivalence has unique effects on attitude-relevant judgments (Maio et al., 1996, 2000; Monteith, 1996; see also Hass, Katz, Rizzo, Bailey, & Eisenstadt, 1991). This prediction reflects the unique aversive quality of ambivalence, which is not reflected by other attitude properties.

Method

PARTICIPANTS

Participants were 66 children (30 girls and 36 boys) from 12 to 14 years of age who were recruited from a secondary school in South Glamorgan, Wales.

PROCEDURE

Participants took part during a 30-min break in their school classes. A female experimenter presented participants with a questionnaire booklet. One portion of the booklet contained (a) an open-ended measure of children's feelings toward their mother, (b) an open-ended measure of children's beliefs about their mother, and (c) a set of scales assessing attitude valence and attitudinal commitment for attitudes toward their mother. Another portion of the booklet contained a similar set of measures for the father, and a third portion of the booklet contained a measure of children's general attachment styles. For each participant, we randomly determined the order of the measures within both portions that assessed attitudes. The third portion (assessing general attachment style) was randomly placed between or after the other two portions, which were distributed in a counterbalanced order across participants. Participants were asked to respond honestly and accurately to the questions. The experimenter assured participants that their answers would not be seen by their teacher, parents, or anyone other than the experimenter.

ATTITUDE PROPERTIES

Attitude valence. For each parent, we measured the valence of participants' attitudes toward the parent by asking participants to rate their feelings toward the parent using a 9-point scale from –4 (*very bad*) to +4 (*very good*). Of importance, this measure elicits overall evaluations of the parents, and one-item attitude measures that are evaluative in nature have high reliability and validity (Haddock, Zanna, & Esses, 1993; Jaccard, Weber, & Lundmark, 1975; Stangor, Sullivan, & Ford, 1991). As expected, participants' mean attitudes toward their mother ($M = 2.97$, $SD = 2.38$) and father ($M = 1.81$, $SD = 1.59$) were positive in valence.

Attitudinal commitment. The attitude valence rating scale also was used to calculate attitude extremity, which is one attitude property that reflects commitment to an attitude (Maio et al., 1997). Attitude extremity was calculated as the absolute value of participants' attitude rating (see Wegener, Downing, Krosnick, & Petty, 1995). Six additional questions assessed attitudinal commitment, using 9-point scales. Following guidelines from Wegener et al. (1995), these items tapped several dimensions of attitude strength, including attitude certainty, attitude intensity, and attitude accessibility. Specifically, participants rated (a) how sure they were about their feelings toward the parent, (b) how much they cared about the parent, (c) how much the parent affected their feelings, (d) the strength of their feelings toward the parent, (e) how often they talk about the parent, and (f) how often they think about the parent. For each parent, a factor analysis of participants' responses to the seven items revealed one factor. Consequently, responses were converted to *z* scores to place all seven items on the same scale, and the *z* scores were averaged to form an index of attitudinal commitment in participants' attitudes toward their father (= .80, $M = 2.34$, $SD = 0.78$) and an index of attitudinal commitment in participants' attitudes toward their mother (= .75, $M = 1.89$, $SD = 0.74$).

Open-ended measures: Attitudinal ambivalence. Ambivalence toward each parent was assessed using the open-ended measures of participants' feelings and beliefs regarding the parents (see also Esses, Haddock, & Zanna, 1993, 1994). To elicit feelings about a parent, participants were asked to think about how they feel during times that they are with the parent (see the appendix). They were asked to write words describing their feelings, using 10 different blank boxes on their questionnaire. Participants were asked to write one word (feeling) in each box, and they were told that they did not have to fill

in all of the boxes. Next, they rated the extent to which each word was good or bad by writing one to three checkmarks (i.e., *good* to *very good*), one to three Xs (i.e., *bad* to *very bad*), or 0 (*in between*) beside each word. In effect, this procedure elicited ratings using a 7-point scale from –3 (*very bad*) to +3 (*very good*).

The procedure for assessing beliefs was similar to the procedure for assessing feelings. To elicit beliefs about a parent, participants were asked to write words describing what the parent is like as a person and to list these characteristics within 10 blank boxes. The beliefs were then rated using the method that was used to rate the feelings.

The ratings of the feelings and beliefs were used to calculate intracomponent ambivalence and intercomponent ambivalence. Because intracomponent ambivalence taps the extent to which there is a high amount of positivity and negativity within attitude components (see Bell et al., 1996), we calculated the amount of positivity and the amount of negativity expressed in the feelings and beliefs. For each component, positivity was calculated by summing the positive ratings across the items listed, and negativity was calculated by summing the negative ratings across the items listed. Ambivalence in each component was then calculated using a formula developed for use with open-ended measures (Bell et al., 1996; Maio et al., 1996, 1997): $P + |N| - 2 \times |P + N| + 30$, where P is positivity, N is negativity, and 30 is a constant that is added to preclude negative scores. (The ambivalence scores calculated using this formula are a linear function of the scores obtained using a formula that Thompson et al. [1995] have validated for use with closed-ended measures.) We then averaged the ambivalence scores for each component to obtain a total intracomponent ambivalence score.

Because intercomponent ambivalence is proportional to the amount of conflict between components (i.e., between beliefs and feelings), we first used the valence ratings to calculate participants' net evaluations ($P + N$) for both their beliefs and feelings (Maio et al., 1997, 2000). Intercomponent ambivalence was then calculated as $|B| + |F| - 2*|B + F| + 60$, where B is the net belief rating, F is the net feeling rating, and 60 is a constant that is added to preclude negative scores (see Maio et al., 1997, 2000). The final result is divided by 2 to place the intercomponent scores on the same scale as the intracomponent scores.

Both formulae calculate the conflict between two dimensions: positivity versus negativity for the assessment of intracomponent ambivalence or feelings versus beliefs for the assessment of intercomponent ambivalence. Of importance, the ambivalence scores calculated using these formulae possess three desirable measurement properties of an ambivalence index: (a) ambivalence scores decrease when you hold the smaller dimension constant and become increasingly polarized on the larger dimension; (b) ambivalence scores increase when the value of the larger dimension is constant and the value of the smaller dimension increases; and (c) when dimension scores are equivalent, ambivalence increases as the dimension scores increase (see Breckler, 1994; Thompson et al., 1995).

For attitudes toward both parents, preliminary analyses revealed that intracomponent and intercomponent ambivalence were strongly correlated, both rs(64) > .77, ps < .001. In addition, although there may be situations where these two variables have different correlates (Hodson, Maio, & Esses, in press), these variables were similarly related to the criterion measures in this study. Consequently, intracomponent and intercomponent ambivalence were averaged to form an index of overall ambivalence (father: M = 22.83, SD = 5.57; mother: M = 21.42, SD = 6.89).

Open-ended measures: Attitudinal embeddedness. We measured two attitude properties that indicate the extent to which attitudes are embedded within a large cognitive and emotional structure. Specifically, using the open-ended measures, we calculated the total number of feelings and the total number of beliefs that were listed for each parent (beliefs about father: M = 3.79, SD = 2.24; feelings about father: M = 3.50, SD = 2.30; beliefs about mother: M = 4.88, SD = 2.31; feelings about mother: M = 4.27, SD = 2.54). A high number of feelings or beliefs indicates that the attitude is associated with or embedded in many attitude-relevant feelings or beliefs, respectively (Maio et al., 1997; see also Wood et al., 1995).

Open-ended measures: Attitudinal inconsistency. We measured two attitude properties that assess the extent to which there are inconsistencies between overall attitudes and the emotions and cognitions that support the attitude: evaluative-affective inconsistency and evaluative-cognitive inconsistency (Chaiken et al., 1995). To measure evaluative-affective inconsistency, we calculated the absolute value of the difference between the z scores for participants' overall attitude valence and the z scores for the net favorability of their feelings (father: M = 0.55, SD = 0.46; mother: M = 0.94, SD = 0.61). To measure evaluative-cognitive inconsistency, we calculated the absolute value of the difference between the z scores for participants' overall attitude valence and the z scores for the net favorability of their beliefs (father: M = 0.59, SD = 0.50; mother: M = 0.82, SD = 0.60). In addition, we measured affective-cognitive inconsistency (i.e., the inconsistency between participants' beliefs and feelings) by calculating the absolute value of the difference between the net belief and feeling ratings (father: M =

3.23, *SD* = 3.99; mother: *M* = 4.06, *SD* = 4.44). (Because the beliefs and feelings were rated using the same scale, *z* scores were not necessary for this calculation.)

GENERAL ATTACHMENT STYLES

We used Bartholomew and Horowitz's (1991) Relationship Questionnaire to measure attachment styles. This frequently used measure contains descriptions of four attachment styles: secure, dismissing (i.e., avoidant/indifferent), fearful (i.e., avoidant), and preoccupied (i.e., anxious/ambivalent). Each attachment style is described in a brief paragraph. A useful feature of the measure is that each paragraph description can be used to describe an attachment style in all relationships or an attachment style in a particular relationship. We used the Relationship Questionnaire to assess participants' attachment to people in general. In addition, we made minor wording changes so that the questionnaire might be more easily understood by our young participants. For example, the description of a secure relationship with people in general was as follows:

> It is easy for me to have close friendships with other people. I am comfortable depending on other people to do things for me. I feel OK if other people depend on me. I don't worry about being alone or if people don't like me.

This description was presented on the same page as the descriptions of the other three attachment styles. For each description, participants rated the extent to which the description reflects them, using a 7-point scale from 0 (*not at all like me*) to 6 (*very much like me*). This measure revealed mild to moderate levels of each type of attachment (secure: *M* = 3.51, *SD* = 1.74; dismissing: *M* = 2.86, *SD* = 1.98; preoccupied: *M* = 2.78, *SD* = 1.86; fearful: *M* = 2.54, *SD* = 1.93).

We should note the breadth of the measure. For example, the descriptions focused on relationships with other people rather than other children. Consequently, the children were free to imagine a variety of friendships, including those with teachers, grandparents, coaches, and spiritual leaders. Other aspects of the descriptions may have been interpreted broadly. For example, children "depend" on others to do a variety of things, such as keeping secrets, playing fair in games, and helping with schoolwork. Given such possibilities, it is not surprising that our participants appeared to easily understand the revised measure. In fact, the validity of our approach is supported by our data; to foreshadow, our results include a replication of the principal findings that Levy et al. (1998) obtained using an older sample.

Results and Discussion

Preliminary analyses indicated similar findings within boys and girls; therefore, sex of participant was not included as a factor in the reported analyses. In addition, an analysis across both studies revealed the same pattern of results within 12-, 13-, and 14-year-olds; therefore, age was not included as a moderator in the analyses.

TABLE 1: Correlations Between Ambivalence and General Attachment Styles

	General Attachment Style			
	Secure	*Dismissing*	*Preoccupied*	*Fearful*
Study 1				
Ambivalence toward father	–.38**	.13	–.25*	–.09
Ambivalence toward mother	–.29*	.12	–.19	–.03
Study 2				
Ambivalence toward father	–.30*	–.05	.13	.12
Ambivalence toward mother	–.21	.11	.22	.33*

*$p < .05$. **$p < .01$.

Ambivalence and general attachment. We examined the correlations between participants' ambivalence toward their father and their general attachment styles (see top panel of Table 1). As expected, children who indicated greater ambivalence toward their father evidenced less security in their attachment to others, $r(62) = -.38$, $p < .003$. Surprisingly, children who were ambivalent toward their father also evidenced less preoccupied attachment to others, $r(62) = -.25$, $p = .05$. (This unexpected finding was not replicated in Study 2.) No other correlations were significant.

In addition, we examined the correlations between participants' ambivalence toward their mother and their general attachment styles (see top panel of Table 1). Again, we obtained a significant correlation between ambivalence and secure attachment, such that children who were ambivalent toward their mother showed less secure attachment to others, $r(62) = -.30$, $p < .03$. No other correlations were significant.

Because ambivalence toward the father and ambivalence toward the mother were both negatively correlated with secure attachment, we tested whether these relations were independent using a regression analysis in which ambivalence toward the father and ambivalence toward the mother were entered as simultaneous predictors of secure attachment. In addition, this regression analysis was useful because ambivalence toward the father was positively correlated with ambivalence toward the mother, both in Study 1, $r(64) = .65$, $p < .001$, and Study 2, $r(42) = .62$, $p < .001$. Of importance, however, these correlations reflect enough nonshared variance (58% to 62%) to avoid problems with interpreting the β coefficients (see Pedhazur, 1997).

Results of the regression analysis indicated a significant effect of participants' ambivalence toward their father, $\beta = -.33$, $t(61) = -2.14$, $p < .04$. The effect of participants' ambivalence toward their mother was not signifi-

cant, $\beta = -.08$, $t(61) = -0.54$, *ns*. Thus, ambivalence toward the father predicted less secure attachment independently of ambivalence toward the mother, whereas ambivalence toward the mother failed to predict secure attachment independently of ambivalence toward the father.

Although one might expect that children who are ambivalent toward their parents should exhibit more dismissing, fearful, and preoccupied attachment styles than children who are not ambivalent, these relations were not obtained in this study. These results provide an important replication of the null relations obtained by Levy et al. (1998).

Relations between ambivalence and other attitude properties. As indicated earlier, attitudinal ambivalence can be related to other attitude properties (e.g., attitude extremity). Thus, we wished to test whether ambivalence toward each parent was related to the other properties of children's attitudes toward the parent.

For participants' attitudes toward their father, children who were ambivalent toward their father exhibited more negative attitudes toward their father, $r(57) = -.64$, $p < .001$, lower attitude commitment, $r(57) = -.77$, $p < .001$, fewer beliefs about their father, $r(64) = -.66$, $p < .001$, and fewer emotions about their father, $r(64) = -.60$, $p < .001$. Ambivalence was not significantly correlated with any of the measures of attitudinal inconsistency (e.g., evaluative-affective inconsistency).

For participants' attitudes toward their mother, children who were ambivalent to their mother exhibited more negative attitudes toward their mother, $r(62) = -.48$, $p < .001$, lower attitude commitment, $r(62) = -.45$, $p < .001$, fewer beliefs about their mother, $r(64) = -.45$, $p < .001$, fewer emotions about their mother, $r(64) = -.57$, $p < .001$, and lower affective-cognitive inconsistency in their attitudes toward their mother, $r(64) = -.30$, $p < .02$. Ambivalence was not significantly correlated with evaluative-affective or evaluative-cognitive inconsistency.

Ambivalence and general attachment: Controlling for other attitude properties. Given the relations between participants' ambivalence toward their parents and other properties of their attitudes toward their parents (e.g., total number of feelings), we tested whether any of the additional properties might account for the relations between ambivalence and general secure attachment. Specifically, for attitudes toward each parent, we calculated a number of partial correlations between participants' attitudinal ambivalence and their general secure attachment. Each partial correlation controlled for the effect of a different attitude property. Results indicated that every correlation between ambivalence and general secure attachment remained significant or near significant, all ps < .06, indicating that none of the other attitude properties explained the relations between attitudinal ambivalence and general secure attachment. Thus, attitudinal ambivalence toward parents was uniquely related to secure attachment in relationships.

STUDY 2

Because Study 1 revealed an interesting pattern of relations between ambivalence toward parents and general attachment styles, an important next step was to replicate them in a separate study. Therefore, our second study partly replicated the design of Study 1. In addition, we wanted to test the hypothesis that the relation between ambivalence toward parents and general attachment styles is mediated by attachment to the parents. Thus, Study 2 measured attachment to each parent and tested whether this attachment mediated the observed relations between ambivalence and general attachment styles.

Method

PARTICIPANTS

Participants were 44 children (27 girls and 17 boys) from 12 to 14 years of age who were recruited from a secondary school in South Glamorgan, Wales.

PROCEDURE AND MATERIALS

Participants took part during a 30-min break in their school classes. Participants were given a three-part questionnaire booklet similar to that in Experiment 1, except that the measures of attitude valence and attitudinal commitment were replaced by measures of participants' attachment to each parent. The measures of participants' attachment to each parent were derived by adapting the Relationship Questionnaire (Bartholomew & Horowitz, 1991) to focus on attachment to each parent. Specifically, the modified questionnaire contained descriptions of attachment to each parent, rather than descriptions of attachment to people in general. The order of the three portions of the questionnaire booklet was randomized across participants.

Results and Discussion

Preliminary analyses indicated similar findings within boys and girls; therefore, sex of participant was not included as a factor in the reported analyses. For attitudes toward both parents, preliminary analyses also revealed that intracomponent and intercomponent ambivalence were strongly correlated, both rs(42) > .65, ps < .001. Thus, we averaged intracomponent ambivalence and intercomponent ambivalence to form an overall index of ambivalence (father: $M = 21.86$, $SD = 6.63$; mother: $M = 19.31$, $SD = 7.36$). As in Study 1, there were mild to moderate levels of each type of general attachment (secure: $M = 4.62$, $SD = 0.91$; dismissing: $M = 2.62$,

SD = 1.58; preoccupied: *M* = 3.19, *SD* = 1.86; fearful: *M* = 1.71, *SD* = 1.50).

AMBIVALENCE AND GENERAL ATTACHMENT

For each of the four attachment styles, we examined the correlations between participants' ambivalence toward each parent and their general attachment styles (see bottom panel of Table 1). When participants' ambivalence toward their father was examined, results indicated that children who were ambivalent toward their father exhibited less secure attachment to others, $r(40) = -.30$, $p = .05$, replicating the correlation between participants' ambivalence toward their father and general secure attachment in Study 1. No other correlations were significant.

When participants' ambivalence toward their mother was examined, results indicated that children who were ambivalent toward their mother showed more fearful attachment to others, $r(40) = .33$, $p < .04$. No other correlations were significant. This pattern did not replicate the correlations between participants' ambivalence toward their mother and general attachment styles in Study 1.[2]

AMBIVALENCE AND ATTACHMENT TO PARENT

Father. For each of the four attachment styles, we examined the correlations between participants' ambivalence toward their father and their attachment to him. Results indicated that children who were ambivalent toward their father evidenced less secure attachment to him, $r(37) = -.48$, $p < .003$. No other correlations were significant.

Mother. For each of the four attachment styles, we examined the correlations between participants' ambivalence toward their mother and their attachment to her. Results indicated that children who were ambivalent toward their mother exhibited less secure attachment to her, $r(40) = -.38$, $p < .003$. In addition, children who were ambivalent toward their mother exhibited more dismissive attachment, $r(40) = .44$, $p < .005$, and more fearful attachment, $r(40) = .35$, $p < .03$, to her. No other correlations were significant.

MEDIATION ANALYSES

Attachment to the father. We tested whether the relation between participants' ambivalence toward their father and their general secure attachment was mediated by their secure attachment to their father. To test this hypothesis, we regressed participants' general secure attachment scores on their ambivalence toward their father and on their secure attachment to him. Results indicated that the effect of secure attachment to the father was significant, $\beta = .38$, $t(36) = 2.20$, $p < .04$, whereas the effect of ambivalence toward him was nonsignificant, $\beta = -.05$, $t(36) = -0.29$, *ns*. Thus, as shown in Figure 1, the relation between ambivalence and general attachment was completely mediated by attachment to the father.

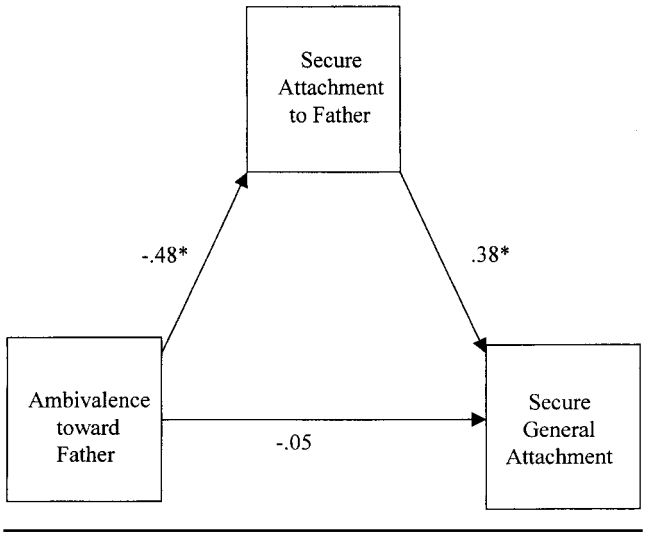


Figure 1
NOTE: Each number adjacent to a line represents the unique relation between the predictor variable and the predicted variable, after controlling for any other predictor variable in the model.
*$p < .05$.

We also tested whether the relation between ambivalence toward the father and secure attachment to him might be mediated by general secure attachment. To examine this possibility, we regressed participants' secure attachment to their father on their ambivalence toward him and on their general secure attachment. Results indicated that the effect of ambivalence remained significant, $\beta = -.41$, $t(36) = -2.90$, $p < .01$, even though the effect of secure attachment also was significant, $\beta = .31$, $t(36) = 2.20$, $p < .04$. Thus, controlling for general attachment did not eliminate the relation between ambivalence toward the father and attachment to him.

In sum, the relation between ambivalence and general secure attachment was mediated by participants' secure attachment to their father. That is, participants' ambivalence toward their father predicted their secure attachment to him, which predicted their general secure attachment.

Attachment to the mother. We tested whether the relation between participants' ambivalence toward their mother and their general fearful attachment was mediated by their fearful attachment to their mother. That is, we regressed participants' general fearful attachment on their ambivalence toward their mother and on their fearful attachment to her. Results indicated no significant effects of ambivalence to the mother, $\beta = .27$, $t(37) = 1.63$, $p < .12$, and fearful attachment to the mother, $\beta = .12$, $t(37) = 0.71$, *ns*. Because there was no significant

effect of fearful attachment to the mother in this analysis, the relation between ambivalence toward the mother and general fearful attachment was not mediated by fearful attachment to the mother.

Nonetheless, it is premature to conclude that there is a robust relation between ambivalence toward the mother and general fearful attachment. This conclusion is premature because the unique relation between ambivalence toward the mother and general fearful attachment was not significant in the above regression analysis and a relation between ambivalence toward the mother and general fearful attachment was not obtained in Study 1 or in the research by Levy et al. (1998). Thus, the relation between ambivalence toward the mother and general fearful attachment may be weak.

GENERAL DISCUSSION

Our studies provided a detailed examination of the relation between ambivalence toward parents and attachment styles. Of importance, these studies (a) employed a newly developed and validated procedure for assessing ambivalence in children, (b) tested whether the effect of attitudinal ambivalence is independent of other attitude properties, and (c) examined the mechanism that presumably mediates the relation between ambivalence and attachment.

A consistent finding across both studies is that children who are ambivalent toward their father are less securely attached in their relationships than are children who are not ambivalent toward him. As expected, Study 1 found that this relation occurs even when other attitude properties are statistically controlled (e.g., attitude valence, attitude strength), and Study 2 revealed that children's secure attachment to their father mediates this relation. These results provide strong evidence that children's ambivalence toward their father is meaningfully related to their secure attachment to him and to people in general. More important, the findings provide information about the mechanism underlying the relation between ambivalence toward the father and general attachment: The relation is mediated by attachment to the father and not by the other attitude properties. The discussion below focuses on two other interesting aspects of our findings.

Ambivalence and Insecure Attachment Styles

Ambivalence toward the father was related to secure attachment, but was not consistently related to other types of attachment (e.g., dismissive attachment). This pattern was obtained in both studies, and it is similar to results from prior research (Levy et al., 1998). Moreover, we obtained these results using a younger sample than has been used in past research. Our new evidence makes it clear that this pattern is replicable. Given this evidence, it is important to consider theoretical perspectives that might explain the weak relations between ambivalence and the insecure attachment styles.

To start, the lack of relations involving the other attachment styles is consistent with Griffin and Bartholomew's (1994) observation that psychological constructs can vary in their relevance to different attachment styles. According to Griffin and Bartholomew, each attachment style represents a different relationship prototype, which may be relevant to different individuals. Indeed, because most children who are nonambivalent toward their parents should feel positively toward the parents and themselves, it is logical that nonambivalent children possess a secure attachment prototype, which is the only attachment prototype that involves a positive appraisal of the self and of one's relationship partner (Griffin & Bartholomew, 1994).

Nonetheless, it remains to be seen which relationship prototype is applicable to ambivalent children. None of the insecure attachment styles appear to capture the mixed perceptions of other (and perhaps the self) that are held by ambivalent children. That is, ambivalence per se is insufficient to predict insecure attachment. Earlier, we suggested that these mixed perceptions might not predict insecure attachment styles if the insecure attachment styles tap a subjective distress that is influenced by a variety of factors other than objective ambivalence. What additional factors are relevant?

One potential moderating factor may be the extent to which people integrate the positive and negative aspects of their attitudes rather than cluster them separately. This factor is revealed by the nature of the Adult Attachment Interview. Adults in these interviews are coded as preoccupied-ambivalent or avoidant when they appear to separately cluster their positive and negative childhood experiences with their parents, whereas adults are classified as secure when they appear to have integrated these experiences (Main & Goldwyn, 1993; see Introduction). Perhaps, therefore, ambivalent children's views of their parents are too well integrated to reflect insecure attachments.

To examine this possibility, we conducted a supplementary analysis that examined the clustering of the positive and negative open-ended responses that were provided by our ambivalent participants. Across both studies, results indicated only chance levels of clustering ($-.10 <$ adjusted ratio of clustering [ARCs] $< .05$) (see Roenker, Thompson, & Brown, 1971, for a description of this procedure).[3] That is, the positive and negative feelings and beliefs were just as likely to be adjacent as they were to be clustered apart. These results reveal provocative evidence that the ambivalent children's positive and negative views of their parents were too well integrated to reflect the insecure attachment styles. It is important

for future research to find and examine ambivalent children whose positive and negative views clearly lack integration. Such research will help assess whether integration is a critical factor.

Regardless of what such research reveals, it is clear that the insecure relationship prototypes involve complex working models and patterns of emotion regulation that go beyond what could be predicted from the knowledge that an individual possesses ambivalent perceptions of his or her caregiver. As proposed by Bowlby (e.g., 1980), attachment styles subsume complex, metacognitive, working models and patterns of emotional self-regulation. In particular, insecure attachment prototypes are associated with a variety of attachment-related beliefs, psychological functions, defensive mechanisms, and affective disorders (see Reis & Patrick, 1996), all of which may interact with the insecure attachment prototypes in a complex manner. It is possible that many of these variables need to be controlled to discover a relation between ambivalence toward parents and the insecure attachment prototypes. This possibility provides an interesting challenge for future research.

Ambivalence Toward the Father Versus Ambivalence Toward the Mother

It is also interesting that there were stronger relations between ambivalence toward the father and general secure attachment than between ambivalence toward the mother and general secure attachment. Participants' ambivalence toward their father was a unique predictor of general secure attachment in Study 1 and the only significant predictor of general secure attachment in Study 2. Of importance, these findings do not reflect a restricted range in ambivalence toward mothers because there was more variability in ambivalence toward mothers than in ambivalence toward fathers. Yet, at a theoretical level, the findings are only partly consistent with attachment theory (Bowlby, 1969, 1973, 1980). On one hand, children should be more securely attached when they associate uniformly positive feelings and beliefs with their primary caregiver than when they associate mixed feelings and beliefs with the caregiver. On the other hand, assuming that the mother is the primary caregiver for most children, ambivalence toward the mother should be most strongly related to general secure attachment.

We suspect that children's ambivalence toward their father is important precisely because he is not the primary caregiver in most families. Children may perceive their primary caregiver (i.e., the mother) as fulfilling a very well defined nurturing role. Children might not learn to depend on fathers and other people in the same way that they depend on their mothers. To some extent, children may need to negotiate relationships with their fathers and other people more than with their mothers. Thus, children may use their interaction with their fathers as a model for their interactions with others and, as a result, may apply the attachment styles that they develop with their fathers to their relationships with others. This reasoning is consistent with prior theories suggesting that fathers act as a model for the child's negotiation with the social world outside of the family (e.g., Parsons & Bales, 1955).

Supplementary analyses provide empirical support for this conjecture. Specifically, we found significant positive correlations between attachment to the father and general attachment for all four attachment styles ($.40 < rs < .60$), but only one significant positive correlation between attachment to the mother and general attachment ($.04 < rs < .43$; for dismissing attachment, $r(38) = .42$, $p < .01$). Given our evidence, future research could further explore this possible mechanism for the relation between ambivalence toward the father and general secure attachment. This is an important issue because there is growing evidence that fathers are more important to child development than was previously believed (Blatt & Homann, 1992; Fincham, Beach, Arias, & Brody, in press; Fox et al., 1991; Lamb, 1981; Phares & Compas, 1992; Rohner, 1998).

Nonetheless, our results should not be taken as evidence that ambivalence toward the mother is unimportant. Although participants' ambivalence toward their father was a unique predictor of general secure attachment in Study 1 and the only significant predictor of general secure attachment in Study 2, there were similar relations between ambivalence toward the mother and general secure attachment (see Table 1). Thus, it is likely that ambivalence toward the mother predicts general secure attachment to some extent, even though the relation is weaker than that observed for fathers. Future research might explore the role of ambivalence toward the mother in further detail.

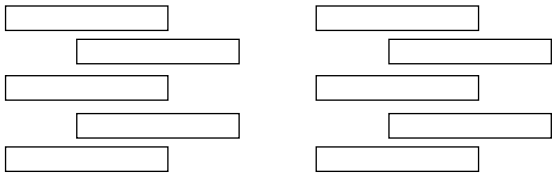
It is also important to determine whether ambivalence toward one or both parents predicts psychological outcomes that were not examined in this study. For example, people who are ambivalent toward their parents may be more likely to experience ups and downs in their relationships with their romantic partners. Individuals who are ambivalent toward their parents may experience variability in their relationships because they have developed an ambivalent working model of others, which may be applied to the relationship partner. As a result, the relationship partner might be evaluated very positively during good times and very negatively during bad times, similar to the manner in which ambivalent attitudes toward social groups are associated with polarized reactions to the groups (e.g., Bell & Esses, 1997).

In sum, our findings extend the accumulating research on attitudinal ambivalence by applying recent developments in research on attitudinal ambivalence to he study of relationships. By applying this important construct to the study of relationships, we obtained valuable information about the psychological nature of attachment in relationships. It appears that secure attachment to others is more likely when there is an absence of ambivalence toward one's parents, especially in attitudes toward the father. Furthermore, the relation between ambivalence toward one's father and attachment to others is independent of other attitude characteristics (e.g., attitude valence) and is mediated by attachment to the father. These findings provide some interesting empirical support for Freud's (1926/1948) observations about the relevance of attitudinal ambivalence to relationships.

APPENDIX
Open-Ended Measure of Feelings About Mum

Now, we would like you to think about the time you spend with your mum.
How do you feel when you are with your mum?
For example, do you feel safe, sad, angry, or excited?
Try to think of some of your own words that show how you feel about your mum.
Please tell the truth: There is no right or wrong answer.
Put each word in a box. Use as many boxes as you need.

My words that show how I feel about my mum are:



Now that you have written your words, we would like you to say if the feelings they show are good, bad, or in between.
You can do this by using the marks below.

=	little bit good
=	quite good
=	very good
0 =	in between
X =	little bit bad
X X =	quite bad
X X X =	very bad

NOTES

1. At first glance, it may seem that inconsistency between one's attitude and the beliefs and feelings underlying the attitude reflect ambivalence. However, these two constructs are theoretically and empirically distinct (Maio, Bell, & Esses, 1996; Maio, Esses, & Bell, 1997, 2000): Ambivalence is a direct function of the conflict between positive and negative dimensions, whereas inconsistency treats discrepancies within a dimension (e.g., positive beliefs vs. positive feelings) as equivalent to those between dimensions (e.g., positive beliefs vs. negative feelings).

2. Using the same procedures as in Study 1, we were also able to calculate the number of feelings that participants possessed about their father, the number of beliefs that participants possessed about him, and the affective-cognitive inconsistency in their attitudes toward him. For each attitude property, we tested whether the attitude property might account for the relation between participants' ambivalence toward their father and general secure attachment, using partial correlations. For each attitude property, ambivalence tended to predict general secure attachment even after controlling for the attitude property (all ps < .06). Similarly, we tested whether the relation between participants' ambivalence toward their mother and general fearful attachment might be accounted for by the number of feelings that participants possessed about their mother, the number of beliefs that participants possessed about their mother, and the affective-cognitive inconsistency in their attitudes toward her. Again, for each attitude property, ambivalence tended to predict general fearful attachment even after controlling for the attitude property (both ps < .06).

3. To assess clustering, we had to know the order in which our participants filled in the boxes of the open-ended questionnaire. In some cases, the order of completion was ambiguous. For these cases, we assumed the ordering that would yield the highest clustering score for the participant. Our data revealed low clustering despite this assumption.

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