Unwanted pursuit behavior after breakup

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CONTENTS

CHAPTER 1

GENERAL INTRODUCTION

FROM STALKING TO UNWANTED PURSUIT BEHAVIOR

Conceptualization of Stalking

Although stalking is an old behavior that likely always existed within human society, it is a relatively new crime (Meloy, 1999). Stalking has more specifically been labeled as a "crime of the nineties" (Goode, 1995, p. 21). Indeed, about two decades ago, the societal, judicial as well as scientific interest in stalking started to expand throughout the world.

Increasing media reports about stalking—initially biased toward the more deviant cases of celebrity stalking—served as an important impetus for the first legislative actions that were undertaken to criminalize stalking. After the murder of the famous actress Rebecca Schaeffer by an obsessed fan and a series of murders of several women in California by their domestic partners under restraining orders, the California legislature passed the first anti-stalking law in 1990 (e.g., Cupach & Spitzberg, 2004). Afterwards, the criminalization of stalking rapidly advanced to the international stage. Stalking is now a crime in all 50 United States of America, Australia, Canada, and several European countries including Austria, Belgium[1], Denmark, Germany, Ireland, Italy, Malta, the Netherlands, and the United Kingdom (De Fazio, 2009; Smartt, 2001). Legal definitions of the crime vary with regard to whether or not concrete stalking behaviors are listed and what specific behaviors comprise stalking. They also differ with respect to the number of incidents and the elements of the conduct including the stalker's intent and the impact of the behaviors that are required to determine guilt (Blaauw, Sheridan, & Winkel, 2002; De Fazio, 2009). Despite the various legal ways of defining stalking,

[1]Since 1998, the Belgian Penal Code criminalizes stalking using the term *belaging*: "He, who has belaged (harassed) a person, while he knew or should have known that due to his behavior he would severely disturb this person's peace, will be punished with imprisonment of fifteen days to two years and with a fine ranging from 50 franc to 300 franc or with one of those punishments. The behavior described in this article can only be prosecuted following a complaint by the person claiming to be harassed". The Belgian law adopts a generic definition (De Fazio, 2009): The disturbance of a person's peace and quiet is considered stalking (whereas most other laws require the experience of fear or threat in the victim) and only one act can be sufficient for legal action (whereas nearly all other legal definitions require repeated or persistent behaviors).

Spitzberg and Cupach (2007) argue that most anti-stalking codes typically describe stalking as an "(a) intentional (b) pattern of repeated behaviors toward a person or persons (c) that are unwanted, and (d) result in fear or that a reasonable person (or jury) would view as fearful or threatening" (p. 66).

Mainly due to the nebulous nature of stalking, not only legislators, but also researchers have adopted a wide variety of stalking definitions since the dramatic increase of interest in stalking in the 1990s (Sheridan, Blaauw, & Davies, 2003). Scholars have even used different synonyms for the word stalking: for example, obsessional following (e.g., Meloy, 1996), obsessional harassment (e.g., Harmon, Rosner, & Owens, 1995; Rosenfeld, 2000), or criminal harassment (e.g., Morrison, 2001). Scientific definitions vary along the same dimensions as legal definitions, including the degree to which concrete behaviors are specified and the exact types of behaviors that are assumed to be stalking behaviors, the frequency, the intention, and the impact of the behaviors that is needed to qualify a behavioral pattern as stalking (e.g., Groenen, 2006). However, similar to the various legal definitions, also the diverse published scientific definitions point at some overall characteristics of stalking that include (a) a pattern of behaviors or repeated conduct, (b) that is directed toward a specific person, (c) unwanted, and (d) provokes an adverse reaction or fear in the victim (Finch, 2001; Groenen, 2006). These characteristics return for instance in Westrup and Fremouw's (1998) comprehensive stalking definition that describes stalking as "one or more of a constellation of behaviors that are repeatedly directed toward a specific individual (the 'target'), are unwelcome and intrusive, and induce fear or concern in the target" (p. 258).

Conceptualization of Unwanted Pursuit Behavior

As the initial, media-constructed prototype of stalking consisted of a high-status celebrity followed by a pathological and delusional stranger, much of the earliest stalking research hold a clinical/forensic view on stalking that was dominated by its linkage to erotomania (Cupach & Spitzberg, 2004; Spitzberg & Cupach, 2003). However, the

observation that most stalking occurs within a relational context—especially the context of a failed relationship—resulted in a growing relational view on stalking. Akin, researchers began providing several new relational conceptualizations since the late 1990s (Spitzberg & Cupach, 2003). More specifically, a number of stalking-related concepts arose such as obsessive relational intrusion (Cupach & Spitzberg, 1998), unwanted pursuit behavior (Langhinrichsen-Rohling, Palarea, Cohen, & Rohling, 2000), forcible interaction (Dunn, 1999), intrusive contact (Haugaard & Seri, 2003), intrusive pursuit (Sinclair & Frieze, 2005), or breakup persistence (Williams & Frieze, 2005) to denote a phenomenon that is more widespread than stalking, namely, the unwanted pursuit of an intimate or romantic relationship.

The concept *unwanted pursuit behavior* (UPB) on which we focus in this dissertation has been defined as the "repeated and unwanted pursuit and invasion of one's sense of physical or symbolic privacy by another person, either stranger or acquaintance, who desires and/or presumes an intimate relationship" (Cupach & Spitzberg, 1998, pp. 234-235) or as "activities that constitute ongoing and unwanted pursuit of a romantic relationship between individuals who are not currently involved in a consensual romantic relationship with each other" (Langhinrichsen-Rohling et al., 2000, p. 73). There are two important differences in the definitions of stalking and UPB. First, whereas the motivation of UPB is to pursue intimacy or a relationship with another person, stalking does not need to result from intimacy motives. Although intimacy motives are widely present among stalkers, stalking can also evolve from other motives such as hatred or revenge. Second, whereas stalking is fearful or threatening for the target, much UPB is frustrating, annoying, upsetting, or privacy-violating but not necessarily fear- or threat-inducing (Cupach & Spitzberg, 1998, 2004; Spitzberg & Cupach, 2003, 2007). UPBs comprise a broader domain of not merely fearful intrusions and can be situated on a severity continuum that ranges from mildly intrusive to severely invasive tactics. Stalking is considered to be a severe form of unwanted pursuit, but not

all UPBs are fearful and meet the criteria used to define stalking (Cupach & Spitzberg, 1998)[2].

Based on meta-analytic work, Cupach and Spitzberg (2004; Spitzberg & Cupach, 2007) have classified the wide variety of unwanted pursuit tactics into eight categories of behaviors: (a) hyperintimacy behaviors (i.e, typical courtship activities taken to an excessive level; e.g., buying outsized gifts or doing large and unsolicited favors for the target), (b) mediated contacts (i.e., all sorts of unwanted communication efforts performed through technologies such as email or cellphones; e.g., expressions of affection or insult left on voice-mail, fax, or e-mail; *cyberstalking* in its more extreme form), (c) interactional contacts (i.e., a range of activities directed toward face-to-face or proximal conversation; e.g., physically approaching the target or showing up at various places), (d) surveillance tactics (i.e., attempts to retrieve information about the victim without the victim's awareness; e.g., following the target or monitoring him/her by calling at all hours to check on her/his whereabouts), (e) invasion tactics (i.e., activities that involve violation of personal or legal boundaries; e.g., invading into the targets living space by breaking and entering into his/her home), (f) harassment and intimidation (i.e., activities designed to bother, annoy, or stress the target; e.g., seeking to harm the person's reputation or harassing network associates of the target), (g) threats (i.e., implicit or explicit suggestions of potential harm that may befall the target; e.g., threatening to hurt oneself, threatening the target or others he/she cares about), and (h) physical aggression and violence (e.g., physically hurting or sexually coercing the target).

The focus of the present dissertation is to examine the broad array of intimacy-driven UPBs within specific samples of former partners. Former partners represent the most important subgroup of stalkers and pursuers according to the prevalence estimates below.

[2]It should be noted that stalking and UPB share the same literature although they are relatively distinct concepts. When presenting research findings in this dissertation, the terms stalking or UPB are used in accordance with the focus of the study that is cited.

STALKING AND UNWANTED PURSUIT BEHAVIOR AFTER BREAKUP

Occurrence of Stalking After Breakup

To date, several large-scale nationally representative studies have assessed the prevalence of stalking victimization in the United States (Basile, Swahn, Chen, & Saltzman, 2006; Baum, Catalano, Rand, & Rose, 2009; Tjaden & Thoennes, 1998), Australia (Purcell, Pathé, & Mullen, 2002), England and Wales (Budd & Mattinson, 2000), Germany (Dressing, Kuehner, & Gass, 2005), and Austria (Stieger, Burger, & Schild, 2008). In these studies, lifetime prevalence estimates of stalking victimization range from 2-13% in men and 7-32% in women. Interestingly, these studies point at a significant number of former partner stalking cases. For instance, in the study of Tjaden and Thoennes (1998), 30% of the male victims and 59% of the female victims were stalked by intimate partners. Twenty one percent of the women stalked by an intimate partner said the stalking occurred before the relationship ended, 36% said it took place both before and after the relationship ended, and most (43%) declared the stalking started after the relationship ended. In Budd and Mattinson's study (2000), 29% of the perpetrators were current or former spouses, partners, girls/boyfriends, or "dates" and according to Basile et al. (2006) the chance of being stalked is highest among persons who are separated, widowed, or divorced. More direct estimates of ex-partner stalking in these studies revealed that in 13-40% of the cases the stalker is a prior intimate partner, resulting in 3-4% of all adults who experience a prior intimate stalking episode at some time in their life (Dressing et al., 2005; Purcell et al., 2002; Stieger et al., 2008). In Belgium, no large-scale national representative population studies on stalking have yet been conducted.

The prevalence of stalking has also been examined in Spitzberg, Cupach, and Ciceraro's (2010) recent meta-analysis reporting on 274 stalking studies. This study provides an overall stalking victimization rate of 27% and a perpetration rate of 26%, with 45% of stalking cases involving the use of threats, 34% the use of physical violence, and 12% the use of sexual violence. The average stalking case was found to last 15

months and mainly women were found to experience stalking (29% victimization in women versus 14% in men) and men to perpetrate stalking (24% perpetration in men versus 12% in women). In line with the above mentioned studies, the majority of stalking appeared to emerge from preexisting relationships: In 81% of all cases victims and perpetrators shared some level of acquaintanceship and no less than around half of all stalking (44%) resulted specifically from past romantic relationships.

Occurrence of Unwanted Pursuit Behavior After Breakup

The occurrence of the broad range of UPBs after breakup has been predominantly investigated in smaller-scale samples of college students who experienced a breakup. In the study of Davis, Ace, and Andra (2000) about 40% of all students reported engaging in at least one pursuit behavior against their ex-partner. Most of these students (30-36%) perpetrated between one and five behaviors and a smaller proportion (8-11%) perpetrated six or more UPBs. Especially mild harassment tactics were prevalent, yet 5% admitted to engaging in vandalism and 2% in threats. Wisternoff (2008) found a higher 97% estimate of students engaging in at least one UPB after their relationship ended. The most common reported behaviors were milder reconciliation behaviors, followed by minor and severe stalking behaviors with the latter being least commonly reported. In their study on breakup persistence, Williams and Frieze (2005) similarly found that nearly all students who had broken up engaged in UPBs. Men and women mostly displayed approach behaviors (97% and 94%, respectively) and surveillance tactics (72% and 86%, respectively) during the breakup. Intimidation (26% and 25%, respectively) and mild aggression behaviors (23% and 32%, respectively) were less common, but still somewhat frequently reported.

In specific groups of students who had difficulty letting go of their relationship or who had not initiated the breakup, between 79% (Dutton & Winstead, 2006) and 99% (Langhinrichsen-Rohling et al., 2000), respectively, indicated perpetrating at least one unwanted activity following the termination of their relationship. Despite some smaller

differences in specific types of behavior, male and female ex-partners were found to perpetrate or experience a similar number of UPBs (see also, Davis et al., 2000; Wisternoff, 2008). Pursuers' most frequently reported behaviors included leaving unwanted messages, monitoring the ex-partner (Dutton & Winstead, 2006), and engaging in unwanted phone calls and unsolicited in person conversations (Langhinrichsen-Rohling et al., 2000). Pursuers were least likely to report physically endangering the target's life and to leave or send threatening objects (Dutton & Winstead, 2006). Similarly, in Langhinrichsen-Rohling et al.'s (2000) sample, only 5% of the perpetrators showed an act that included following, threatening, and/or injuring their ex-partner and/or their ex-partner's friends, pets, or family members.

To summarize, these UPB studies illustrate that non-extreme patterns of unwanted pursuit are a common reaction to relationship dissolution: A substantial percentage of all breakups results in one or more UPBs and mainly mildly intrusive tactics are displayed in relatively low frequencies. However, these studies also show that—as suggested by the prevalence estimates of stalking among ex-partners—these milder patterns of pursuit in some cases turn into more frequent perpetrations and/or the use of more invasive types of tactics that might be considered as stalking. The risk that milder forms of UPB escalate into more severe violent, persistent, or recurrent stalking episodes has moreover been found to be significantly higher among ex-partners (for review, see McEwan, Mullen, & Purcell, 2007).

Consequences of Post-Breakup Stalking and Unwanted Pursuit Behavior

Next to the heightened occurrence of stalking and UPB among ex-partners, studies also demonstrated detrimental effects of post-intimate stalking on the psychosocial health of its victims (Kamphuis, Emmelkamp, & Bartak, 2003). Furthermore, victims who had a prior intimate relationship with their stalker experience a greater number of psychological, physical, and social costs of stalking victimization than victims without such a relationship with their perpetrator (Sheridan & Lyndon, 2012). Not only

victims, but also stalkers themselves often suffer from psychological, social, and legal consequences as a result of their behavior (e.g., Mullen, Pathé, & Purcell, 2009). In a recent study with stalkers, for instance, depression was a common finding and high rates of suicide were reported (Mc Ewan, Mullen, & MacKenzie, 2010).

Understandably, mapping the risk of stalking to victims has been a more central concern of researchers. In this sense, Cupach and Spitzberg (2004; Spitzberg & Cupach, 2007) classified, based on meta-analysis, the plural potential consequences of being stalked into different types of effects. Next to more positive resilience effects (i.e., effects improving the victim's life and/or attitude), the negative effects of stalking victimization in their topography consist of general disturbances (i.e., effects that relate to emotional, psychological, or lifestyle troubles; e.g., quality of life costs), affective health problems (i.e., negative emotional states; e.g., anxiety or depression), social health problems (i.e., influence of stalking on the victim's bond with others; e.g., social isolation), cognitive health effects (i.e., effects on the victim's mind or mental state; e.g., distrust or loss of self-esteem), spiritual health effects (i.e., changes in the quality of faith-based belief systems; e.g., loss of faith in society or god), physical health problems (i.e., body-related effects; e.g., addictions or insomnia), behavioral disturbances (i.e., effects that refer to changes in lifestyle patterns; e.g., changing work or residence), and resource health effects (i.e., financial costs related to victimization; e.g., disruption of work). The authors also state that stalking not only affects the victim directly but can also have wider devastating effects for the social/relational networks affiliated with the victim (e.g., victims' family and friends may suffer from negative psychosocial sequelae) and the larger societal system in which the victim exists (e.g., financial costs of stalking victimization for the legal system and for psychological and health care).

Experiences with the broad range of relationally intrusive behaviors also tend to have negative consequences. For instance, more frequent experiences with either hyperintimacy behaviors, mediated contacts, interactional contacts, surveillance tactics, invasion tactics, harassment and intimidation, threats, or physical aggression and violence significantly correlate with more frequent experiences of the above negative

symptoms, with correlations ranging from .29 for milder hyperintimacy tactics to .65 for more severe threatening tactics (Nguyen, Spitzberg, & Lee, 2012). Furthermore, as previously noted, all types of UPB generally have an annoying, upsetting, or privacy-violating impact. More severe UPBs are perceived as threatening as well, yet also relatively mild UPBs are often viewed as at least mildly threatening (Cupach & Spitzberg, 2000). Similarly, a substantial proportion of targets of post-breakup intrusive contact has been found to fear for their safety (20%) and reports a decidedly negative impact of the intrusive contact on their subsequent dating relationships or their lives in general (31%; Haugaard & Seri, 2003).

Based on (a) the widespread nature of non-extreme patterns of post-breakup pursuit, (b) their potential escalation into more severe forms of stalking, (c) research demonstrating the negative consequences of post-breakup stalking and unwanted pursuit, and (d) the large number of relationship separations nowadays, former partner pursuit can be considered as a significant social problem that deserves research attention. Therefore, the present dissertation aims to assess the occurrence of the broad range of UPBs among Flemish ex-partners and to examine what explains whether or not these behaviors occur and—especially—to what extent they are displayed. In the following, we present research on risk factors of UPB after breakup. Then, we further outline the general aims of the present dissertation and give an overview of its different chapters.

EXPLAINING UNWANTED PURSUIT BEHAVIOR AFTER BREAKUP

Individual Perpetrator Characteristics

A substantial part of the explanatory research in the stalking literature has taken a clinical/forensic orientation and explains stalking behavior by its association with individual clinical and forensic characteristics of perpetrators. This line of research—mainly conducted in clinical/forensic samples of stalkers—has shown that stalkers are

often characterized by a prior criminal history (e.g., Meloy, 1996; Meloy et al., 2000) as well as a psychiatric profile that often includes the presence of Axis II cluster B (borderline, narcissistic, psychopathic) personality disorders or traits (e.g., Meloy, 1996; Meloy et al., 2000; Rosenfeld & Harmon, 2002). Also specific ex-intimate stalkers likely have a history of criminal involvement (e.g., Morrison, 2008; Roberts, 2002) and cluster B personality characteristics (e.g., Douglas & Dutton, 2001; Morrison, 2008).

Next to the traditional clinical/forensic approach that views stalking as a result of disordered or deviant individual traits of pursuers, a growing number of researchers have taken a relational or contextual view on stalking and UPB (see Cupach & Spitzberg, 2004; Spitzberg & Cupach, 2003). Such a view implies that the causes of stalking and unwanted pursuit not purely exist in the individual but also in the relationship or the contexts in which people find themselves. In that connection, as illustrated in the following sections, scholars examining pursuit and stalking behaviors that specifically emerge from previous romantic entanglements have shown interest in characteristics of the breakup context and in pre-breakup romantic relationship characteristics as predictors for post-breakup pursuit.

Breakup Characteristics

Studies on risk factors related to the breakup have reported that former partners engage in more pursuit tactics when their ex-partner most wanted the relationship to end than when they most wanted the breakup themselves or wanted the breakup as much as their ex-partner (e.g., Davis et al., 2000; Dye & Davis, 2003; Wisternoff, 2008). Next to the influence of the persons' role in initiating the breakup, elevated levels of emotional disturbance resulting from the breakup enhance ex-partners' perpetrations of UPB. Such a disturbance consists of general emotional distress reactions (e.g., Dutton & Winstead, 2006) as well as a variety of specific emotional reactions such as anger, jealousy, unhappiness, guilt, sadness, or depression (e.g., Davis et al., 2000; Dennison & Stewart, 2006; Dutton & Winstead, 2006; Dutton-Greene, 2004; Dye & Davis, 2003;

Wisternoff, 2008). Also higher levels of rumination or cognitive preoccupation with the ex-partner or past relationship have been found to contribute to more frequent UPB perpetrations (e.g., Cupach, Spitzberg, Bolingbroke, & Tellitocci, 2011; Dennison & Stewart, 2006; Dutton-Greene, 2004).

Romantic Relationship Characteristics

Investigations of early features of romantic relationships offer more distal explanations for the perpetration of UPBs after breaking up. Various empirical studies have shown that former partner pursuit and stalking behaviors often result from high-conflict romantic relationships that are typically characterized by verbal, psychological, physical, or sexual abuse (e.g., Coleman, 1997; Langhinrichsen-Rohling et al., 2000; Roberts, 2005; Wigman, Graham-Kevan, & Archer, 2008; Williams & Frieze, 2005), control and denigration (e.g., Davis et al., 2000; Dye & Davis, 2003; Roberts, 2005), anger, jealousy, suspiciousness, or possessiveness (e.g., Dutton-Greene, 2004; Langhinrichsen-Rohling et al., 2000; Roberts, 2002; Tassy & Winstead, 2010; Wigman et al., 2008). Numerous studies in addition report that more anxiously attached romantic partners (or partners with a preoccupied or fearful attachment style) perpetrate more stalking or UPBs after a breakup (e.g., Davis et al., 2000; Dutton & Winstead, 2006; Dye & Davis, 2003; Kamphuis, Emmelkamp, & de Vries, 2004; Langhinrichsen-Rohling et al., 2000; MacKenzie, Mullen, Ogloff, McEwan, & James, 2008; Tassy & Winstead, 2010; Wigman et al., 2008; Wisternoff, 2008).

Whereas the attachment theory (Bowlby, 1969, 1973, 1980) is by far the most popular psychological theory to explain stalking and UPB perpetration (for review, see Spitzberg & Cupach, 2007), also Rusbult's investment model (1980; Rusbult, Martz, & Agnew, 1998) has been used as a theoretical framework for understanding unwanted relationship pursuit. This well-established model, developed in the close relationships literature, states that people who feel more satisfied in their relationship, who perceive their relationship alternatives as lower in quality, and who invest more in their

relationship develop a stronger commitment to their relationship and, subsequently, show more persistence and relationship maintenance behaviors in their interpersonal relationships. However, only a limited number of researchers (Dutton & Winstead, 2006; Dye & Davis, 2003; Tassy & Winstead, 2010; Wisternoff, 2008) have examined associations between one's level of pre-breakup relationship satisfaction, alternatives, investment size, and commitment on the one hand and one's degree of post-breakup stalking and UPB perpetrations on the other hand. The results of these studies show weak and inconsistent effects of the investment model variables that ask further clarification. Similarly, the issue of empathic abilities of stalkers and UPB perpetrators has not yet been fully tackled. Although empathy enhances prosocial behavior and inhibits antisocial behavior (e.g., Eisenberg, 2000; Jolliffe & Farrington, 2004), a direct link between persons' empathic abilities and their perpetration of stalking or UPBs has still not been found (Asada, Lee, Levine, & Ferrara, 2004; Lewis, Fremouw, Del Ben, & Farr, 2001)[3].

THE PRESENT DISSERTATION

General Aims of the Dissertation

The general goals of the present research were (a) to describe the occurrence of post-breakup UPBs among adult ex-partners in Flanders as this has not yet been explicitly done and (b) to complement the existing explanatory research on the perpetration of these behaviors relying upon a wide variety of risk factors consisting of

[3]Empathy and attachment are often conceptualized as dispositional individual traits. However, specific measures of empathy have been found to be more sensitive than global measures of empathy (e.g., McGrath, Cann, & Konopasky, 1998). In a similar vein, people are assumed to have global and relationship-specific attachment styles (Collins & Read, 1994) meaning that adults may have multiple attachment styles regarding to multiple attachment figures. Given that attachment orientation may vary across attachment relationships, it is preferable to measure attachment in a specific way. In fact, scholars now tend to favor the view that attachment is a relationship-specific instead of an individual trait variable (Mikulincer & Shaver, 2007). For these reasons, we measured attachment style and empathy in a relationship-specific way in our studies (i.e., with reference to the relationship with the ex-partner before the breakup) and considered them as relationship characteristics.

breakup, pre-breakup relationship, and individual perpetrator characteristics. Because the unwanted pursuit of an ex-partner is assumed to be a significant social problem, it is relevant to gain insight in the factors that influence why and to what extent pursuit tactics are perpetrated after a breakup. With respect to our second goal, we conducted four empirical studies that built upon one another. As explained more in detail in the next section, we started our investigation with assessing proximal breakup characteristics as risk factors of former partner UPB and gradually added more distal pre-breakup relationship and individual perpetrator characteristics as risk factors in our tested models. Next to our aim to gradually expand our understanding of the risk factors of UPB perpetration, we also aimed to address several specific caveats present in the existing explanatory research on post-breakup UPB throughout our studies. These caveats, the ways in which our studies are responsive to them, and the exact content of our four empirical studies are outlined below.

Caveats and Detailed Overview of the Chapters

First, the majority of previous UPB and stalking studies examining former partners have relied upon non-European, English-speaking college student samples. Yet, college students differ from the general adult population in their experiences with unwanted pursuit and stalking (for review, see Ravensberg & Miller, 2003) and the constructions and perceptions of such behaviors might be culture-sensitive (e.g., Cupach & Spitzberg, 2004). The existing findings on former partner pursuit and stalking thus cannot be easily generalized to samples of adult ex-partners in Flanders. In order to address this methodological caveat, we used ecologically valid community samples of Flemish adult ex-partners in all four empirical *Chapters 2 to 5*.

Second, in all our studies ex-partners were administered a series of self-report questionnaires. To measure the perpetration of UPBs toward the ex-partner, participants were asked to report how frequently they engaged in a wide range of unwanted pursuit

tactics. The total number of perpetrated tactics registered in our samples followed a non-normal distribution. In our empirical *Chapters 2 to 5*, we analyzed this distribution with advanced count regression models that are specifically designed to analyze skewed counts or rates (e.g., Atkins & Gallop, 2007; Karaszia & van Dulmen, 2010). Next to the types of samples used in this dissertation, also our adoption of these statistical models methodologically contributed to the existing research in which mostly less sound statistical approaches have been used to analyze skewed UPB distributions. Throughout the dissertation, we detail in each chapter which specific type of count model was used and explain how the results of these models need to be interpreted.

Third, despite the fact that UPBs mainly occur in the context of relationship breakups, the research attention paid to the role of contextual factors related to the separation is still relatively limited and incomplete. The separation literature describes several psychological aspects of the breakup that could advance the understanding of former partner pursuit. These comprise peoples' individual adjustment to the separation (Amato, 2000; Sweeper & Halford, 2006) and their cognitive appraisals of the separation such as their perceptions of the reasons, the initiation, and locus of cause of the breakup (Amato, 2000; Amato & Previti, 2003). Certain of these aspects have been examined in the light of UPB perpetration (i.e., initiator status and emotional/cognitive adjustment to the separation; cf., supra) but the potential influence of other aspects (i.e., the specific reasons and locus of cause of the breakup) remains unstudied. In *Chapter 2*, we performed a more comprehensive investigation of the effect of the breakup context on UPB perpetration and examined associations between multiple breakup characteristics and UPB perpetration. This study (see Table 1) used a convenience sample of 184 ex-partners who self-reported on their perpetration of UPBs, their individual adjustment to the separation (i.e., various separation-specific and general distress reactions), and their cognitive appraisals of the breakup (i.e., reasons, locus of cause, and initiation of the breakup).

Table I

Overview of the Four Cross-Sectional Survey Studies Assessing Risk Factors of UPB Perpetrations

	Chapter 2	**Chapter 3**	**Chapter 4**	**Chapter 5**
Breakup characteristics	Post-breakup individual adjustment Initiator Locus of cause Breakup reasons	Post-breakup negative affect Initiator Locus of cause		Post-breakup rumination Initiator
Relationship characteristics		Adult attachment style Investment model variables Conflict	Adult attachment style Investment model variables Conflict	Adult attachment style Empathy
Individual perpetrator characteristics				Past delinquent behavior Psychopathic traits Borderline traits Narcissistic traits
N[a]	184 ex-partners	396 ex-partners IPOS	46 ex-couples 33 IPOS	631 ex-partners 225 male & 406 female ex-partners 178 same- & 453 opposite-gender ex-partners 143 clinical & 488 non-clinical ex-partners
Sample type	Convenience	Representative	Convenience	Convenience

Note. IPOS = Interdisciplinary Project for the Optimization of Separation trajectories.

[a]In each of the studies, independent samples were used except that a greater part of the ex-couples in Chapter 4 were part of the IPOS sample used in Chapter 3.

Fourth, previous investigations (cf., supra) have explored which early features of romantic relationships facilitate UPB perpetrations after breaking up. However, there is a lack of studies assessing the role of these relationship characteristics accounting for the effects of important breakup characteristics. More specifically, it is unclear to what extent more distal romantic relationship characteristics contribute to explaining former partner pursuit on top of the effects of breakup characteristics that are more proximally related to the perpetration of post-breakup UPBs. Furthermore, researchers have assumed that the effects of relationship characteristics on the occurrence of UPBs are distinct according to specific conditions of the breakup (e.g., by separating breakup initiators from non-initiators when examining the influence of relationship properties; Langhinrichsen-Rohling et al., 2000). Although such studies suggest that breakup characteristics might moderate the association between relationship characteristics and the occurrence of UPBs, no previous study to our knowledge empirically assessed such moderator effects. Studying moderator effects nevertheless seems important as it might result in a more detailed insight into the effects of relationship characteristics and helps to further clarify weak or inconsistent effects of variables such as the investment model components (cf., supra; Baron & Kenny, 1986; Frazier, Tix, & Barron, 2004). *Chapter 3* further built upon Chapter 2. In this chapter, we more specifically reassessed the role of pre-breakup relationship characteristics (i.e., relational conflict, adult attachment style, investment model variables) in UPB perpetration by taking into account the role of breakup characteristics (i.e., post-breakup negative affect, initiation, and locus of cause of the breakup). Relationship characteristics' effects were investigated on top of and in interaction with significant breakup characteristics. Our research questions in this study were tested using a representative sample of 396 ex-partners. This sample was a subsample of the Interdisciplinary Project for the Optimization of Separation trajectories (IPOS) that carried out a systematic and large-scale recruitment of formerly married partners (cf., Table 1).

Fifth, UPBs are mainly present in former intimate relationships that consist of two interdependent relationship partners. Interdependency refers to the mutual affection by one another's thoughts, feelings, or behaviors (Kelley & Thibaut, 1978; Thibaut & Kelley, 1959). It has been stated (e.g., Cupach & Spitzberg, 2004; Langhinrichsen-Rohling, 2006; Sinclair & Frieze, 2005) that the understanding of unwanted relationship pursuit would be advanced by truly relational studies that collect reports from both partners and incorporate such an interdependent perspective. Nevertheless, existing explanatory studies on UPB perpetration are restricted to the assessment of *intra*individual or *actor* effects (i.e., effects which show how much a person's UPB is associated with his or her own characteristics). Potential *inter*individual or *partner* effects (i.e., effects which show how much a person's UPB is associated with his or her partner's characteristics) have not yet been explored to date. In *Chapter 4*, our research questions built upon this caveat and led to a more in-depth investigation of the role of romantic relationship characteristics examined in Chapter 3. This study's primary objective consisted of exploring whether a person's scores on measures of adult romantic attachment, the investment model variables, and conflict in the past relationship not only explained their own, but also their ex-partner's perpetration of UPBs after separation. Data of 46 heterosexual ex-couples were analyzed with the actor-partner interdependence model (APIM; e.g., Cook & Kenny, 2005; Kenny, Kashy, & Cook, 2006). Specifically, several APIMs explored actor, partner, and gender main effects and Actor x Gender, Partner x Gender, and Actor x Partner interaction effects of these romantic relationship characteristics on the perpetration of UPBs. The majority of ex-couples (n = 33) in this study were part of the IPOS sample used in the previous chapter. Some additional ex-couples (n = 13) were recruited to enlarge statistical power (view Table 1).

Sixth, integrative theoretical frameworks, such as the integrative contextual developmental model of White, Kowalski, Lyndon, and Valentine (2000), suggest that stalking and UPB are phenomena determined by risk factors at multiple levels (e.g., the situational, dyadic, and intrapersonal level). Nevertheless, previous studies mainly

assessed the roles of breakup, relationship, or deviant individual perpetrator characteristics separately (e.g., Dutton & Winstead, 2006; Spitzberg & Veksler, 2007) and either take a more clinical/forensic, relational, or contextual view to understanding unwanted pursuit (see also, Spitzberg & Cupach, 2003). As such, more studies seem needed that take an integrative approach and shed light on the relative importance of these different types of risk factors to explain the perpetration of post-breakup UPBs. In this respect, we performed in *Chapter 5* (see Table 1) an integrated examination of several breakup (i.e., initiator status and post-breakup rumination), relationship (i.e., attachment style and empathy in the pre-breakup relationship with the ex-partner), as well as individual perpetrator characteristics (i.e., past delinquent behavior, psychopathic, borderline, and narcissistic traits). By adding individual perpetrator characteristics to breakup and relationship characteristics in our explanatory analyses, this chapter expanded our research conducted in Chapters 2 and 3. For this study, we used data from a newly recruited convenience sample consisting of 631 ex-partners.

Finally, studies on stalking have assessed differences in the nature and risk factors of stalking as perpetrated by (a) clinical/forensic samples versus non-clinical/forensic samples of stalkers (e.g., Spitzberg et al., 2010), (b) same- versus opposite-gender stalkers (e.g., Pathé, Mullen, & Purcell, 2000; Strand & McEwan, 2011), and (c) male and female stalkers (e.g., Purcell, Pathé, & Mullen, 2001; Spitzberg et al., 2010). Differences between these groups have not yet been properly addressed in the particular context of post-breakup UPB. Some UPB studies with ex-partners have been sensitive for gender differences in occurrence of pursuit tactics (e.g., Dutton & Winstead, 2006), but overall there has been little discussion on the differential predictability of male and female ex-partners' UPB perpetration. Even more scarce are studies assessing differences between ex-partners who separated from a same- or opposite gender partner and between (clinical/non-clinical) ex-partners in or not in post-breakup psychological guidance or treatment. Yet, it seems relevant to know if findings made about UPB can be generalized to these different groups of ex-partners. This is another objective of *Chapter 5*, where we

additionally examined potential differences between male and female, same- and opposite-gender, and clinical and non-clinical ex-partners in our assessment of the occurrence and risk factors of UPB. When recruiting our convenience sample for this chapter, we made additional efforts to reach same-gender and clinical ex-partners. The final group of 631 ex-partners consisted of 225 male and 406 female ex-partners, 178 same- and 453 opposite-gender ex-partners, and 143 clinical and 488 non-clinical ex-partners (cf., Table 1).

The last chapter, *Chapter 6*, in this dissertation comprises a general discussion of the findings from the different studies. We recapitulate the research we conducted and give an overview of our findings. Next, several theoretical implications, methodological considerations, directions for future research, and practical implications related to our research are discussed. Finally, this chapter ends with a brief conclusion.

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CHAPTER 2

THE ROLE OF BREAKUP CHARACTERISTICS IN UNWANTED PURSUIT BEHAVIOR BETWEEN FORMER PARTNERS[1]

ABSTRACT

Former partners comprise the most important subgroup of stalkers. However, contextual factors related to the breakup are hardly examined to explain ex-partner pursuit. In a community sample of 184 separated persons, about one fifth perpetrated at least one unwanted pursuit behavior (UPB) in the past two weeks. Being woman, having a lower than Bachelor's education level, and showing less social desirable response tendencies raised the observed number of perpetrated UPBs. Beyond these effects, the number of enacted UPBs increased when one more strongly attributed the cause of the breakup to the ex-partner or external factors, and when one appraised the ex-partner as the breakup initiator. Breakup reasons, namely the ex-partner's lack in meeting family obligations and own infidelity, also related to more perpetrations of UPB albeit inferior to subjective appraisals with regard to the cause and the initiation of the separation. Finally, participants who felt more lonely negative after breaking up showed more UPBs. The results enlighten that the examination of breakup characteristics gains further attention and imply that clinical treatment might benefit from fostering cognitive reconstructions and breakup adjustment.

[1]Based on De Smet, O., Buysse, A., & Brondeel, R. (2011). Effect of the breakup context on unwanted pursuit behavior perpetration between former partners. *Journal of Forensic Sciences*, *56*, 934–941. doi:10.1111/j.1556-4029.2011.01745.x

INTRODUCTION

Stalking has become a widely studied topic during the last several decades. Drawing on the burgeoning literature, it appears that an important subgroup of all stalkers comprise former partners. More specifically, Spitzberg and Cupach's (2007) meta-analysis has illustrated that about half of all stalking cases result from previous romantic relationships. Further, the risk of violent, persistent, and recurrent stalking is heightened in former partner stalking (for review, see McEwan, Mullen, & Purcell, 2007).

To date, different concepts have been used to refer to former partner harassment. For example, obsessive relational intrusion (Cupach & Spitzberg, 1998), unwanted pursuit behavior (UPB; Langhinrichsen-Rohling, Palarea, Cohen, & Rohling, 2000), forcible interaction (Dunn, 1999), breakup persistence (Williams & Frieze, 2005), intrusive contact (Haugaard & Seri, 2003) and post-breakup female harassment (Jason, Reichler, Easton, Neal, & Wilson, 1984) all denote the unwanted pursuit of a former intimate partner. It is important to remark that *unwanted pursuit* differs from *stalking*. Beyond the inconsistency in legal definitions of stalking, Spitzberg and Cupach (2007) state that stalking generally entails "an (a) intentional (b) pattern of repeated behaviors toward a person or persons, (c) that are unwanted, and (d) result in fear, or that a reasonable person (or jury) would view as fearful or threatening" (p. 66). Different from unwanted pursuit, stalking does not exclusively result from relational or intimacy motives. Furthermore, stalking requires multiple behaviors evoking threat or fear whereas the more widespread UPBs tend to vary in severity (Spitzberg & Cupach, 2007). Although UPBs might escalate to menacing or fear-inducing behaviors (which would be labeled stalking), they mainly have an annoying, pestering, or irritating impact, situated on the opposite end of the severity continuum (Cupach & Spitzberg, 1998). In line with this reasoning, some studies (e.g., Roberts, 2005) have discriminated stalking from less severe forms of former partner harassment by means of legal stalking criteria. However, because the behaviors assessed in the current study mostly fail to meet the stalking-threshold and because our assessment couldn't ascertain the presence of different legal

stalking standards, we chose to speak about UPB throughout the course of this article. UPB is defined as "activities that constitute ongoing and unwanted pursuit of a romantic relationship between individuals who are not currently involved in a consensual romantic relationship with each other" (Langhinrichsen-Rohling et al., 2000, p. 73).

Studies examining the occurrence of UPB perpetration in college student samples have revealed that a substantial percentage of all breakups result in one or more UPBs. Figures vary from 40% in general college student samples after a breakup (Davis, Ace, & Andra, 2000) to 99% in specific samples of non-initiators of the breakup (Langhinrichsen-Rohling et al., 2000). Hence, former partner pursuit can be seen as a rather common reaction occurring in an abnormal situation. Consequently, it is important to study the separation context to develop a more comprehensive theory of former partner unwanted pursuit. To date, explanatory studies have mainly focused on relationship characteristics (e.g., Langhinrichsen-Rohling et al., 2000) and on stable, individual differences as contributors of relational pursuit and stalking. The latter more specifically consist of historic factors (e.g., negative parental experiences; Langhinrichsen-Rohling & Rohling, 2000), psychological characteristics (e.g., empathy; Lewis, Fremouw, Del Ben, & Farr, 2001), and demographic, clinical-psychiatric, and forensic factors (e.g., gender, axis I and II disorders, criminal involvement; Sheridan, Blaauw, & Davies, 2003). The main goal of this study was to examine the role of breakup characteristics in the perpetration of UPBs. In this study, breakup characteristics refer to two often studied elements in the separation literature: peoples' individual adjustment to the breakup and their cognitive appraisals of the breakup. Different from previous studies using college student samples, a community sample of separated persons was used.

Post-Breakup Individual Adjustment

Stress perspectives, such as the divorce-stress-adjustment-perspective developed by Amato (2000), state that breaking up is a stressful transition with negative consequences on several life domains to which families have to adjust. It is clear that

divorcing persons experience more psychological distress than married individuals (for review, see Amato, 2000). These psychological consequences are multidimensional in nature. In addition to rather *general* stress reactions, such as anxiety or depression, *separation-specific* reactions exist as well. The latter consist of feelings of loneliness, isolation, and negative affect owing to the loss of social networks or to difficulties in rebuilding social networks and participating in social activities. Separation also triggers attachment processes, including emotional and cognitive preoccupation with the ex-partner or the past intimate relationship (e.g., missing or constantly thinking about the ex-partner; Sweeper & Halford, 2006). These specific consequences (especially preoccupation) underlie pursuit as illustrated by clinical (Mullen, Pathé, & Purcell, 2009), theoretical (relational goal pursuit theory; Cupach & Spitzberg, 2004), and empirical evidence (Dennison & Stewart, 2006). In addition to specific reactions, general stress reactions seem to affect the pursuit of the ex-partner. Previous studies namely showed that a higher degree of negative emotionality predicts more pursuit behaviors among ex-partners (Dennison & Stewart, 2006; Dutton & Winstead, 2006) and that relational stalkers suffer from mental health problems such as mood disorders (e.g., Roberts, 2002).

Cognitive Appraisals of the Breakup

In the separation literature, persons' cognitive appraisals about the separation are examined primarily to explain their individual adjustment to the breakup. Well-studied cognitive appraisals include ex-partners' perceived reasons for the breakup and their appraisals regarding who initiated the separation and what was the locus of cause of the separation. These appraisals moderate the relationship between the divorce process and subsequent adjustment to the relationship dissolution (for review, see Amato, 2000). Findings on the influence of breakup reasons have shown that poor adjustment is associated with appraising a demeaning or violent relationship, career or role conflicts, the respondent's substance abuse (Gigy & Kelly, 1992) and infidelity on the part of the

respondent or the respondent's spouse (Amato & Previti, 2003) as reasons for the breakup. Regarding the role of initiator status, it is important to differentiate three types of breakup initiation: self, ex-partner, or joint initiation of the breakup. Self-initiating the breakup has consistently been associated with a higher post-breakup psychological well-being (e.g., Amato & Previti, 2003). Finally, studies examining the effect of locus of cause generally acknowledge that the cause of the breakup can be attributed (a) internally (to the person him- or herself), (b) to the relationship, and externally to (c) the ex-partner or (d) external factors (e.g., work conditions). According to Grych and Fincham (1992), the effect of a specific causal attribution on individual adjustment is determined by the degree to which the attribution protects or enhances the person's self-image and by the extent to which the attribution makes it possible to gain control over the experience. Consequently, people who attribute causality to the relationship show high levels of well-being (Amato & Previti, 2003; Newman & Langer, 1981), whereas internal attributions negatively affect adjustment and growth. Attributing causality to the ex-partner has a less damaging effect, but is still positively related with distress. Finally, perceiving external factors as having caused the breakup has strong negative effects on general adjustment, ex-partner attachment, and distress (Amato & Previti, 2003; Tashiro & Frazier, 2003).

Whereas the relationship between cognitive appraisals and post-separation adjustment has previously been studied, there is only limited evidence that these appraisals determine the perpetration of UPBs. Both locus of cause and the reason for the breakup have never been examined in relation to UPB perpetration. Existing findings do only indirectly suggest that pursuit perpetration might be associated with reasons referring to suspected or actual infidelity (Langhinrichsen-Rohling & Taylor, 2003), psychopathology or personality traits of the perpetrator (Kamphuis, Emmelkamp, & de Vries, 2004; Sheridan et al., 2003), specific characteristics of the relationship (Dutton & Winstead, 2006; Langhinrichsen-Rohling et al., 2000), drug abuse, and physical or psychological abuse committed by the perpetrator before the breakup (e.g., Melton, 2007; Roberts, 2002). Differently, initiator status is a well-documented predictor. Several

studies have pointed out that more UPBs are perpetrated in case the ex-partner initiated the breakup (e.g., Davis et al., 2000).

The Present Study

In sum, research has shown that UPBs are often present when romantic partners separate. To date, explanatory research has largely focused on relationship characteristics and stable, individual factors. However, due to the significance of former partner pursuit, more attention should be paid to the role of contextual breakup characteristics. According to the literature, breakup characteristics encompass persons' (a) individual adjustment to the breakup and (b) cognitive appraisals of the breakup event. Although some researchers devoted attention to certain aspects of the breakup in the light of UPB perpetration (i.e., initiator status and post-breakup adjustment), several other aspects (i.e., locus of cause and reasons for the breakup) remain underexposed. With a more profound investigation, focusing on multiple psychological breakup characteristics, we aimed to advance the current understanding of former partner pursuit. Based on the existing evidence regarding the role of individual adjustment, we hypothesized that experiencing higher levels of continued former partner attachment, loneliness and general negative affect, such as anxiety and depression, relates to higher levels of UPB perpetration (hypothesis 1). Of the breakup characteristics selected in this study, only initiator status has been extensively studied. In line with the existing evidence, non-initiators are expected to show more UPBs compared to initiators and mutual decision makers (hypothesis 2). Because no previous study has explicitly focused on the role of locus of cause and reason for the breakup, these research questions are considered explorative in nature. Because the focus is on the perpetrator's perspective, we included a metric for social desirability to control for self-presentation issues.

METHOD

Participants and Procedure

The criteria for participating in this study were that participants needed to be divorced or separated from a previous romantic partner, with whom they had been married or (legally) cohabiting. Sampling was done in collaboration with five companies and 28 divorce professionals in order to reach a substantial number of separated persons. These companies and professionals distributed, among their personnel or clients, paper versions of the questionnaire package or the URL of the password-protected webpage where the questionnaire package could be completed. A description of the study and inclusion criteria always preceded the questionnaire package. We also solicited participation through newspaper and Internet advertisements referring to the webpage. Finally, we used a snowball-sampling method by asking individuals who did not meet the inclusion criteria or who did not want to participate to pass on the paper package or webpage address to eligible persons in their environment. These recruitment efforts resulted in a convenience sample consisting of 194 Flemish ex-partners. Data of 10 participants were removed from the dataset, because values were missing for more than 25% of the total questionnaire package. Our final sample consisted of 184 individuals (64% women). The participants' ages ranged from 22 to 64 years (M = 42.48, SD = 9.25). The majority of people were highly educated: 60% of the sample reported having at least a Bachelor's education level. Most participants had been married to their ex-partner (78%) and had children with their former partner (92%). The average duration of the past romantic relationship was 14.12 years (SD = 8.42, range: 1–36) and of time since the breakup 5.73 years (SD = 6.31, range: 0–37). More than half of the sample (58%) was currently involved in a romantic relationship. The participants signed an informed consent before starting to complete the questions. Participation took place on a voluntary basis. After completing the anonymous questionnaire package, the participants sent it back, either electronically or via a prepaid return envelope.

Measures

Unwanted pursuit behavior perpetration. We used the offender version of the UPB Inventory (UPBI; Palarea & Langhinrichsen-Rohling, 1998) and translated the scale into Dutch. Using a procedure of forward and backward translations, we developed a Dutch version of the UPBI, which was evaluated by the author of the scale. Twenty-six items measure a wide range of pursuit behaviors. The first 13 items are described as mild acts (e.g., "Leave unwanted phone messages or hang-up calls", "Give unwanted items in person") and the latter 13 as severe acts (e.g., "Follow him/her", "Physically injure him/her"). In order to obtain specific frequency ratings matching the timeframe of the adjustment measures, we asked participants to indicate how often they showed the presented behaviors against their ex-partner during the last two weeks (1 = *one time*, 2 = *two times*, 3 = *three times*, 4 = *four times or more*). Participants could also indicate whether these behaviors ever occurred (5 = *not the last two weeks, but before*) or never (6 = *this never happened).* These two response options were recoded into zero. Cronbach's alpha was .81 in Langhinrichsen-Rohling et al.'s (2000) study and, similarly, .88 in this study.

Initiator status. The question "Who wanted the breakup most?" (1 = *I*, 2 = *ex-partner*, 3 = *both equally*) was used to identify the initiator of the breakup.

Locus of cause. Four questions assessed to what extent participants viewed themselves, their ex-partner, external factors or circumstances (e.g., third parties, living conditions), and their relationship as having caused the breakup (1 = *completely disagree* to 5 = *completely agree*). The first question reflected the degree of internal attribution of the reason for breaking up, the second and third question the degree of external attribution to the ex-partner and external factors, and the latter question the degree of attribution to the relationship.

Perceived reason(s). Reason(s) for the breakup were asked using the same procedure as Amato and Previti (2003). Participants were asked to report why they had separated through an open question. Two independent raters coded the responses. This coding consisted of rating the presence or absence of 18 categories of reasons described in Amato and Previti's study: infidelity, drinking or drug use, physical or mental abuse, incompatible, grew apart, personality problems, communication, immature, personal growth, no love, unhappy, not meeting obligations to family, work problems, financial problems, illness, interference from others, don't know, and other reasons. After training, the raters independently coded the answers. Next, they discussed discrepancies in order to reach consensus. From the reasons classified as *other*, we created post hoc two extra categories: (a) sexual orientation, defined as homosexuality or bisexuality of the participant or his/her partner, and (b) mistrust, defined as one or both partner(s) lacking trust toward the other. Infidelity (53% of the sample) was further divided into infidelity on part of the respondent or former partner. Of the final 21 categories of reasons, the most common reason was infidelity of the ex-partner, followed by incompatibility, grew apart, personality problems, physical or mental abuse, no love, not meeting family obligations, and infidelity of the respondent. The remaining categories of reasons, reported by less than 10% of the sample, were excluded from further analyses. The inter-rater reliability for incompatibility was moderate (Kappa = .49). Kappa values for the other categories reported by more than 10% ranged between .68 and .94, showing a substantial to almost perfect level of agreement (Landis & Koch, 1977).

Separation-specific individual adjustment. The Psychological Adjustment to Separation Test (PAST; Sweeper & Halford, 2006) is a self-report measure to assess three key dimensions of adult separation adjustment problems: ex-partner attachment, lonely negativity, and co-parenting conflict. The scale was translated into Dutch using the similar procedure applied for translating the UPBI. To investigate the role of individual functioning, we employed the scores on the first two subscales. All computed scale scores in this study were considered invalid for cases with more than 25% missing items

on the (sub)scale. Participants had to rate each item for the past two weeks on a 5-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*). Ex-partner attachment (eight items) represents thoughts and feelings about the lost partner (e.g., "I constantly think about my former partner", "I miss my former partner a lot"). Lonely negativity, referring to loneliness and negative affect due to the breakup, is measured using 11 items (e.g., "I find it difficult to enjoy myself", "I feel like I'm on a constant emotional roller-coaster ride"). Sweeper and Halford (2006) showed that the PAST is a promising instrument for assessing adult separation-specific adjustment problems as demonstrated by its satisfactory reliability (test-retest and internal reliability) and acceptable convergent and discriminant validity. In our sample, alpha reliabilities were high (α = .83 for ex-partner attachment and α = .86 for lonely negativity).

General individual adjustment. A Dutch translation (van der Does, 2002) of the Beck Depression Inventory - second edition (BDI-II; Beck, Steer, & Brown, 1996) was used to assess the presence and severity of depressive symptoms during the past two weeks. Each item (21 in total) consists of four expressions in terms of increasing intensity, followed by a numerical score ranging from 0 to 3. Higher total sum scores indicate the presence of severe depressive symptoms. In this sample, the internal consistency was high (α = .93). The psychometric properties of the Dutch version are acceptable and comparable to those of the original BDI-II (van der Does, 2002).

To assess the level of anxiety, we employed the state version of the Spielberger State-Trait Anxiety Inventory-form Y (STAI-form Y; Spielberger, 1983). Participants had to rate 20 items (e.g., "I feel at ease", "I feel upset") on a 4-point Likert scale (1 = *not at all* to 4 = *very much so*). Higher total sum scores reflect a higher intensity of state anxiety. Reliability and validity of the Dutch translation (van der Ploeg, Defares, & Spielberger, 1980) are supported (van der Ploeg, 2000). The alpha reliability in this study was .96.

Social desirability. The Marlowe-Crowne Social Desirability Scale (SDS; Crowne & Marlowe, 1960) was used to assess the tendency to respond in a socially desirable

manner. The scale consists of 33 *true* (0) – *false* (1) items (e.g., "No matter who I'm talking to, I am always a good listener", "I'm always willing to admit it when I make a mistake"). We adopted a Dutch format of Ballard's (1992) 11-item short version, as recommended by Loo and Loewen (2004). Nevertheless, the observed reliability was low (α = .57).

Statistical Analyses

Analyses were conducted using SPSS 15.0 and R 2.9.0. In order to analyze the non-normal frequency distribution of the total number of perpetrated UPBs in our sample (see Figure 1), we employed regression models specially designed to analyze skewed distributed counts or rates. Despite the fact that ordinary linear regression produces biased results when analyzing this kind of data (because important assumptions are violated) and the fact that counts and rates are common in psychological research, regression models for count data are rarely used (e.g., Atkins & Gallop, 2007). Alternatively, infrequent counts are often transformed or dichotomized. Because both methods have disadvantages (e.g., limited interpretation of the results, loss of meaningful variation owing to recoding), count models are a more appropriate choice. Several count models have been developed, including Poisson regression, negative binomial regression (NB), zero-inflated Poisson regression (ZIP), and zero-inflated negative binomial regression (ZINB). To select the most appropriate model, one can use the Vuong test (Vuong, 1989) for comparing non-nested models, the likelihood ratio test for comparing nested models, the significance test of the dispersion parameter, and inspection of a histogram comparing the observed frequencies with the predicted ones of the different count regression models (Atkins & Gallop, 2007; Karazsia & van Dulmen, 2010; Long, 1997). These means indicate whether the data are zero-inflated (ZIP), overdispersed (i.e., variance larger than the mean, NB), both zero-inflated and overdispersed (ZINB), or neither (Poisson).

RESULTS

Descriptive Statistics

Table 1 presents descriptive statistics of the independent variables used in this study. Figure 1 displays the skewed distribution of the dependent variable. In the two weeks preceding the assessment, 151 participants or 83% of the total sample showed no UPB toward their former partner. The remaining 17% reported engaging in at least one UPB. The overall frequencies ranged from 0 to 31 (M = 0.97, SD = 3.32). Table 2 shows that the registered behaviors mainly consisted of mild pursuit tactics (e.g., asking friends for information about the ex-partner, starting an unwanted conversation in person) whereas severe tactics were least reported (e.g., waiting outside the ex-partner's home, school, or workplace, physically injuring the ex-partner and forcing sexual contact - not indicated by any of the participants).

Table I

Descriptive Statistics of the Independent Variables

Continuous variable	*n*	*M* (*SD*)	Range	Categorical variable	*n*	%
Ex-partner attachment	182	15.91(6.66)	8–40	Infidelity of ex-partner	170	42.4
Lonely negativity	182	23.22(8.39)	11–55	Incompatibility	175	20.6
Depression	183	8.57(9.58)	0–63	Grew apart	175	19.4
Anxiety	183	36.84(12.42)	20–80	Personality problems	175	13.7
Social desirability	183	7.34(2.15)	0–11	Physical or mental abuse	175	13.1
Locus of cause self	182	2.33(1.10)	1–5	No love	175	11.4
Locus of cause ex-partner	183	3.69(1.07)	1–5	Not meeting family obligations	175	10.9
Locus of cause relationship	182	3.42(1.27)	1–5	Infidelity of respondent	170	10.6
Locus of cause external factors	181	2.81(1.46)	1–5	Initiator	184	I = 51.0
						Ex-partner = 37.0
						Both = 12.0

Table II

Descriptive Statistics and Frequencies of Perpetrated UPBs in the Past Two Weeks

UPB	*M* (*SD*)	%
Unwanted phone messages or hang-up calls	0.09 (0.47)	4.4
Unwanted letters/e-mails/faxes/gifts	0.02 (0.17)	1.1
Unwanted phone conversation	0.08 (0.47)	4.4
Unwanted conversation in an internet chat room	0.01 (0.07)	0.6
Unwanted conversation in person	0.12 (0.62)	5.0
Give unwanted items in person	0.03 (0.32)	1.7
Ask friends for information about ex-partner	0.17 (0.71)	7.7
Contact family/friends without permission	0.08 (0.53)	2.7
Show up in places where he/she might be	0.09 (0.56)	3.3
Efforts to run into him/her “unexpectedly”	0.07 (0.44)	3.3
Unexpected home visits	0.01 (0.07)	0.5
Unexpected visits at school/work/public place	0.01 (0.11)	1.1
Wait outside home/work/school	0.00 (0.00)	0.0
Following	0.02 (0.30)	0.5
Making vague threats to ex-partner	0.01 (0.11)	1.1
Threaten info release that would be harmful	0.05 (0.37)	2.7
Threaten to harm/kill ex-partner	0.01 (0.07)	0.5
Threaten to harm/kill pets/someone close	0.01 (0.07)	0.5
Threaten with a weapon	0.01 (0.11)	1.1
Release harmful info	0.07 (0.48)	2.2
Steal items from ex-partner	0.02 (0.17)	1.1
Damage property from ex-partner	0.01 (0.07)	0.5
Harm pet/someone close	0.01 (0.07)	0.5
Physically injure him/her	0.00 (0.00)	0.0
Kidnap/hold ex-partner against his/her will	0.01 (0.07)	0.5
Force sexual contact after the breakup	0.00 (0.00)	0.0

Preliminary Analyses and Count Model Selection

Before examining the effects of the predictors of interest, we explored the possible effects of social desirability and several descriptive characteristics (gender, age, education level, having a new partner, length of the past relationship, and time since the breakup) on UPB perpetration. This model was also used to determine which of the four count models provided the best fit with the distribution of the outcome variable. The NB model did not converge, suggesting that this model did not adequately represent the data. The likelihood ratio test comparing the ZIP and ZINB model showed the data were overdispersed, $\chi^2(1, n = 159) = 13.80$, $p < .001$. The distribution was also zero-inflated according to the Vuong test comparing the Poisson and ZIP model, $V = 4.66$, $p < .001$. Finally, the insignificant dispersion parameter in the ZINB output ($\theta = 1.17$, $SE = 0.64$, $Z = 1.83$, $p = .066$) and the fact that the ZINB model appeared to add little over the ZIP model according to Figure 1 indicated that the extra dispersion parameter in the ZINB model not improved the fit to the data and that the overdispersion was mainly because of the preponderance of zeros in the distribution.

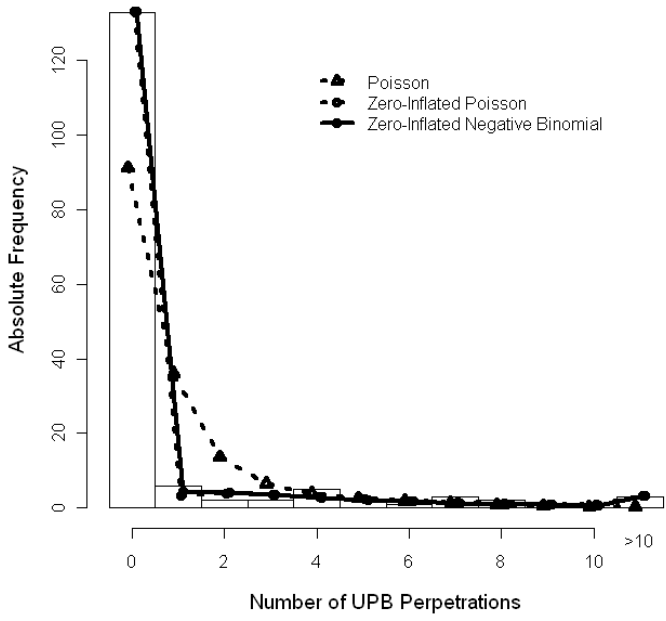

Figure 1. Histogram of observed UPB perpetrations in the past two weeks (*n* = 182, *M* = 0.97, *SD* = 3.32, range: 0–31, Skewness = 5.66, Kurtosis = 41.05) with predicted frequencies from the Poisson, ZIP, and ZINB count regression models. The fit of the NB model is not displayed because this model did not converge.

As such, the ZIP model, which consists of two parts, was selected. The zero-inflation (logistic or dichotomous) part models the probability of having excess zeros not accounted for by the Poisson model and represents a latent class of persons who can only have zero values (i.e., people who may only report no UPB perpetration, named the *always zero group*). The counts (continuous) part models the frequency of the remaining non-excess zeros and non-zeros accounted for by the Poisson distribution and represents a latent class of persons who can have both zero and non-zero values (i.e., people who may report UPB perpetration, named the *not always zero group*). The zero-inflation part is a binary logistic regression predicting the probability of excess zeros or the probability

of membership in the always zero group. The counts part is a Poisson regression modeling the frequency of non-(excess) zero counts of persons in the not always zero group. Instead of adopting a simple linear interpretation, regression coefficients need to be exponentiated (e^B) and are, respectively, called odds ratios (*OR*s) and rate ratios (*RR*s). When converted to percentages, 100 x (e^B - 1), *OR*s reflect the percentage change in the odds of excess zeros, whereas *RR*s reflect the percentage change in the frequency of expected non-(excess) zeros for every unit change in the predictor controlling for other predictors in the model. *OR*s or *RR*s that are equal to one correspond to no effect of the predictor under consideration on the perpetration of UPB (Atkins & Gallop, 2007; Karazsia & van Dulmen, 2010; Long, 1997).

When testing the effects of the control variables, none of the predictors reached significance in the zero-inflation part. In the counts part, the expected frequency of perpetrated UPBs showed a marginally significant association with gender (*RR* = 1.69, *p* = .081) and a significant association with education level (*RR* = 0.43, *p* < .001) and social desirability (*RR* = 0.85, *p* = .005). Thus, the frequency of perpetrated UPBs in the counts part tended to increase by 69% among women (compared to men) and decreased by 57% among people having at least a Bachelor's education level compared to people having a lower than Bachelor's education level. For each unit increase in social desirability, the frequency of UPB perpetrations in the counts part decreased by 15%.

Because of the large number of independent variables, the predictors of interest were preselected based on the results of 17 ZIP models partially testing each separate predictor when controlling for the effects of gender, education level, and social desirability (cf., partial correlations). The predictors of interest that were significant according to these partial tests, were then integrated into (a) a model testing the influence of individual adjustment on UPB perpetration and (b) two models testing the effects of cognitive appraisals of the breakup. Because the low number of non-zero counts diminished the power to detect effects in the counts part, it was more proper to test only small sets of predictors.

Does Post-Breakup Individual Adjustment Influence Unwanted Pursuit Behavior Perpetration?

As expected from hypothesis 1, four partial tests examining the effects of the adjustment scales, showed an effect of lonely negativity (*RR* = 1.03, *p* = .001), depression (*RR* = 1.01, *p* = .039), and anxiety (*RR* = 1.01, *p* = .020) on the frequency of perpetrated UPBs in the counts part of the ZIP model. The odds of excess zero UPB counts in the zero-inflation part was negatively associated with lonely negativity (*OR* = 0.93, *p* = .002), depression (*OR* = 0.92, *p* < .001), anxiety (*OR* = 0.93, *p* < .001), but also former partner attachment (*OR* = 0.92, *p* = .003). The results of the ZIP model, assessing the integrated effects of the adjustment measures that were significant in the previous partial tests, are presented in Table 3. Apart from the control variables, only lonely negativity and state anxiety stood out as predictors. The expected number of UPBs rose by 5% for every unit increase in lonely negativity. Every unit increase in anxiety lowered the chance of excess zero UPB counts by 6%.

Table III

Main Effects of Post-Breakup Individual Adjustment on UPB Perpetrations

	Zero-inflation part		Counts part	
Variable	*OR* (e^B)	95% CI	*RR* (e^B)	95% CI
Gender			2.06***	[1.38, 3.07]
Education level			0.55***	[0.39, 0.77]
Social desirability			0.85***	[0.78, 0.93]
Ex-partner attachment	0.98	[0.90, 1.07]		
Lonely negativity	1.02	[0.94, 1.12]	1.05**	[1.01, 1.07]
Depression	0.96	[0.89, 1.04]	0.98	[0.95, 1.00]
Anxiety	0.94*	[0.89, 0.99]	1.01	[0.99, 1.03]

Note. n = 178. *OR* = odds ratio. *RR* = rate ratio. CI = confidence interval. Education level was recoded into two levels: having an education level lower than a Bachelor's degree and a Bachelor's degree or above. Having a lower than Bachelor's education level and being man served as reference categories. The model was significantly better than the intercept-only model, $\chi^2(10, n = 178) = 89.73$, $p < .001$. Variance inflation factors (VIFs) = 1.02–3.09 (< 10; Cohen, Cohen, West, & Aiken, 2003).

*p < .05. **p < .01. ***p < .001.

Do Cognitive Appraisals of the Breakup Influence Unwanted Pursuit Behavior Perpetration?

Thirteen partial tests independently examined the effects of initiator status, the four loci of cause, and reasons for the breakup. In line with hypothesis 2, ex-partner initiation (relative to self-initiation) was significantly associated with UPB perpetration in both the counts and the zero-inflation part of the model (*RR* = 2.02, $p < .001$; *OR* = 0.34, $p = .014$). Of the four loci of cause, more strongly attributing the cause of the breakup to the ex-partner or to external factors was positively associated with the frequency of UPB perpetrations in the counts part (respectively, *RR* = 1.37, $p < .001$; *RR* = 1.15, $p = .043$). Interestingly, of the reasons reported by at least 10% of the sample, a negative effect of infidelity on part of the respondent and a positive effect of not meeting obligations to the family emerged in the counts part of the model (respectively, *RR* = 0.38, $p = .011$; *RR*

= 2.54, p = .004). Important to note is that about 90% of the people mentioning not meeting family obligations, referred to the ex-partner's lack.

Next, one model analyzed the effects of initiator status and both external loci of cause (see Table 4) and one model tested the effects of both reasons (see Table 5). All predictors in both integrated models remained significant. Ex-partner initiation (relative to self-initiation) related to a 62% increase in number of UPBs and to a 66% decrease in the chance of excess zero UPB counts. When joint initiation served as reference category, the effect of ex-partner initiation only remained in the zero-inflation part, leading to a 88% decrease in the chance of excess zero UPB counts. Further, every unit increase in blaming the ex-partner or external factors respectively related to a 30% and 20% increase in the frequency of displayed UPBs. Finally, the frequency of perpetrated UPBs significantly increased (109%) when the reason for the breakup was not meeting family obligations (by the ex-partner). The reason own infidelity, negatively related to the frequency of perpetrated behaviors (58%).

Interestingly, when post hoc testing a third model in which both reasons were added to the model containing initiator status and both loci of cause, the effects of the reasons disappeared (RR = 0.79, p = .571; RR = 1.18, p = .657). This observation may suggest that subjective appraisals of who initiated the breakup and what caused the breakup mediated the relationship between reasons and UPB perpetration.

Table IV

Main Effects of Initiator Status and Locus of Cause on UPB Perpetrations

	Zero-inflation part		Counts part	
Variable	*OR* (e^B)	95% CI	*RR* (e^B)	95% CI
Gender			2.05***	[1.34, 3.12]
Education level			0.51***	[0.35, 0.74]
Social desirability			0.82***	[0.74, 0.89]
Initiator[a]				
Ex-partner versus I	0.34*	[0.14, 0.82]	1.62*	[1.09, 2.41]
Both versus I	2.77	[0.33, 23.34]	2.92	[0.94, 9.06]
Ex-partner versus both	0.12*	[0.02, 1.00]	1.80	[0.58, 5.61]
Locus of cause ex-partner			1.30**	[1.10, 1.53]
Locus of cause external factors			1.20**	[1.05, 1.38]

Note. n = 176. *OR* = odds ratio. *RR* = rate ratio. CI = confidence interval. Education level was recoded into two levels: having an education level lower than a Bachelor's degree and a Bachelor's degree or above. Having a lower than Bachelor's education level and being man served as reference categories. The model significantly differed from the intercept-only model, $\chi^2(9, n = 176) = 97.29$, $p < .001$. Generalized VIFs (for categorical variables with more than two levels, see Fox & Monette, 1992) = 1.02–1.10.

[a]Initiator status overall contributed to the zero-inflation and counts part: respectively, $\chi^2(2, n = 176) = 9.56$, $p = .008$ and $\chi^2(2, n = 173) = 7.83$, $p = .020$.

*$p < .05$. **$p < .01$. ***$p < .001$.

Table V

Main Effects of Breakup Reasons on UPB Perpetrations

Variable	Counts part	
	RR (e^B)	95% CI
Gender	2.22***	[1.49, 3.31]
Education level	0.58**	[0.39, 0.86]
Social desirability	0.84**	[0.76, 0.93]
Infidelity participant	0.42*	[0.20, 0.90]
Not meeting family obligations	2.09*	[1.07, 4.08]

Note. n = 167. *RR* = rate ratio. CI = confidence interval. Education level was recoded into two levels: having an education level lower than a Bachelor's degree and a Bachelor's degree or above. Having a lower than Bachelor's education level, being man, and the absence of infidelity and not meeting family obligations were used as reference categories. The model was significantly better than the intercept-only model, $\chi^2(5, n = 167) = 65.41$, $p < .001$. VIFs = 1.00–1.05.

*$p < .05$. **$p < .01$. ***$p < .001$.

DISCUSSION

Main Findings

Knowing that former partners are one of the most vulnerable groups to become targets of UPB, this study focused on the explanatory value of several breakup characteristics. Using an ecological valid community sample of ex-partners and advanced statistical regressions, the contribution of several properties of the breakup on UPB perpetration was tested.

A first important result of the present study shows that about one-fifth of the participants performed at least one pursuit behavior toward their former partner during the last two weeks. Mild pursuit behaviors (e.g., unwanted in person conversations or asking friends for information about the ex-partner) occurred most often and thus can be considered as a common, perhaps standard, reaction following a breakup. This has been illustrated in previous studies on post-breakup UPB in college student samples,

showing higher prevalence estimates compared to our study (e.g., Davis et al., 2000). Knowing that the average stalking case lasts for about two years (Spitzberg & Cupach, 2007), our measuring of recent occurrences of UPB in a sample with an elevated mean time since the breakup, mainly explains the lower estimates found in this study. Furthermore, because the occurrence of pursuit tends to be higher in student samples (Spitzberg & Cupach, 2007) any comparison between such samples and our community sample is limited. Unfortunately, studies examining UPB in a community sample of separated persons are, to our knowledge, nonexistent.

When exploring the influence of descriptive characteristics and social desirability, we found that being a woman, having a lower than Bachelor's education level, and less social desirable response tendencies raised the number of self-reported UPBs. Our finding that women report higher levels of UPB is at first sight surprising compared to the existing knowledge that stalking perpetrators are mainly men (e.g., Tjaden & Thoennes, 1998). However, similar to the insignificant gender differences found in several UPB perpetration studies (e.g., Dutton & Winstead, 2006), two studies examining female stalkers illustrated that stalking is rather a gender-neutral behavior (Meloy & Boyd, 2003; Purcell, Pathé, & Mullen, 2001). In these studies, female stalkers resembled male perpetrators in many demographic characteristics, the presence of psychopathology, the intrusiveness, number and duration of the behaviors, and frequency of threats and violence. Men and women equally stalked intimate partners, were equally driven by a rejected type of motivation, and had a similar elevated risk of being violent when the victim was a prior sexual intimate. The question thus remains why women in our study enacted more behaviors. Prevailing cultural stereotypes such as the fact that male perpetrators' behaviors are considered to be more grave (Sheridan, Gillett, Davies, & Blaauw, & Patel, 2003) and gender-specific perceptions such as the observation that male perpetrators tend to perceive the impact of their pursuit behavior as less negative (Sinclair & Frieze, 2005) might have motivated the men in our sample to underreport UPB. This explanation could be credible taking the significant negative effect of self-presentation concerns into account. Finally, the observed effect of education level less

equivocally joins research findings showing higher proportions of unemployment among stalkers (Cupach & Spitzberg, 2004) and a positive association between education level and the quality of the co-parental relationships (Arditti & Kelly, 1994).

This study was mainly interested in investigating the role of people's post-breakup individual adjustment and breakup-related cognitive appraisals in their perpetration of unwanted pursuit tactics beyond the effects of the above control variables. Our results show that experiencing more general feelings of anxiety lowered the chance of showing no UPBs, and that experiencing more separation-specific feelings of loneliness and negative affect elevated the frequency of perpetrated pursuit tactics. The sizes of the regression coefficients were rather small, what might have been owing to the fact that several persons in the sample were already separated for a longer time. These findings are in line with previous studies (e.g., Dennison & Stewart, 2006; Dutton & Winstead, 2006) and suggest that both general and separation specific consequences of breaking up are valuable in understanding UPB perpetration. Nevertheless, mainly specific reactions, such as rumination or anger and jealousy (e.g., Dennison & Stewart, 2006; Dye & Davis, 2003), have been examined. Related, Dutton and Winstead (2006) stated: "If research focuses only on anger or jealousy as motives for UPB, there is a risk of overlooking the role that feelings such as sadness, hurt, loneliness, or depression play in UPB and stalking" (p. 582). It should be noted that although anxiety, loneliness and negative affect are common emotional consequences of breaking up (Sweeper & Halford, 2006), we could not, owing to the cross-sectional nature of our study, determine whether these affective states were situational caused by the breakup or rather chronic affect states, present prior to the breakup and possibly part of a psychopathological disorder. Aside the role of breakup-related negative affect states (e.g., Dennison & Stewart, 2006; Dutton & Winstead, 2006), these chronic affect states could also explain the significant effect of anxiety, loneliness and negative affect observed in this study. Previous studies namely pointed to the presence of chronic mood disorders in (relational) stalkers (e.g., Roberts, 2002).

Our examination of breakup-related cognitive appraisals shows that the number of perpetrated tactics as well as the probability of perpetrating pursuit tactics increases when the ex-partner initiated the breakup. This effect is highly plausible and similar to the results of previous studies (e.g., Davis et al., 2000). Also, more strongly attributing the cause of the breakup to the ex-partner or external factors raised the frequency of perpetrated tactics in our sample. Explanations referring to intermediary cognitions and emotions could foster the understanding of these effects. First, similar to the effect of being "dumped", the effect of ex-partner locus of cause might be explained by the above mentioned feelings of anger and jealousy. Second, the lack of control, which is thought to be associated with externally attributing the cause of the breakup (Grych & Fincham, 1992) and ex-partner initiation of the breakup (Amato & Previti, 2003), could explain the observed positive association between external loci of cause and ex-partner initiation on the one hand and UPB perpetration on the other hand. This explanation is likely when one considers the demonstrated effect of need for control in stalking perpetrators (e.g., Brewster, 2003). Third, the effect of externally attributing the reason for the breakup may be understood by the associated belief that intrinsically there had been nothing wrong with the relationship. This belief, described as idealization in Cupach and Spitzberg's (2004) relational goal pursuit theory, is assumed to be a meaningful cognitive mechanism hindering acceptance of the breakup. Thus, generally speaking, although no previous study has examined the effects of causal attributions before, our results seem to fit or relate to the existing theories and findings.

A last important, explorative part of this research focused on examining the role of reasons for the breakup. Consistent with logical assumptions, own infidelity appeared as a protection factor lowering the number of perpetrated UPBs. Separating owing to the ex-partner's lack in meeting family obligations resulted in elevated levels of former partner pursuit. Knowing that after a breakup mutual responsibilities remain present between ex-partners (e.g., in case children are involved), this effect might signify that the perpetrator engages in unwanted communication, approaches of family or friends, etc. in order to mobilize or force the other partner to fulfill his/her prolonged responsibilities

after the dissolution of their relationship. If this is the case, then it is possible that we registered UPBs that were not necessarily motivated by pursuing intimacy. Post hoc analyses suggest that the effects of reasons are mediated by initiator status and external loci of cause. Thus, not the real reasons but rather the subjective appraisals of the causation and initiation seem to influence one's engagement in UPB tactics (see also Amato & Previti, 2003). The low occurrence of several categories of reasons (which were excluded from the analyses) and the fact that several categories mainly contained ex-partner-related problems, whereas an effect of participant-related problems was expected, are relevant explanations for the insignificance of the other categories of reasons.

Limitations, Strengths, and Implications

Several limitations in our study must be addressed. First of all the convenient nature of our sample resulted in an overrepresentation of participants separated for several years. Therefore, the current results cannot be generalized to the broader population of separated persons. This overrepresentation was probably due to the fact that people who had gotten over their breakup were more willing to participate. Despite this restriction, our study is one of the first examining UPB perpetration in a Flemish community sample of separated persons. This is a notable strength knowing that a great deal of research still focuses on victims and makes use of college student samples in English-speaking countries.

To avoid that our measurement of UPB perpetration would be tainted by memory biases (especially present in the non-recently separated participants) we used a rather unusual reference period of two weeks. An advantage of this short timeframe was its fit with the timeframe of the non-retrospective predictors. On the other hand, this short timeframe in combination with the modest sample size, resulted in a low number of non-zero counts with implications for the power of the statistical analyses. Accordingly, we used count models that respected the true distribution of our dependent variable and

protected the power by testing subsets of predictors. Nevertheless, future studies should strive for larger samples which will be fruitful to catch a higher number of pursuit tactics. Larger samples will also help to diminish the skewed distribution of several reasons which were now excluded from further analyses and to make a more detailed coding of the reasons possible (e.g., own versus ex-partner infidelity).

Because of the above limitations and preliminary results (concerning locus of cause and breakup reasons), generalizing the results of this study requires further verification. Future longitudinal research seems valuable in order to disentangle the directions of the effects and to shed light on the predictive value of the breakup characteristics that were significantly associated with UPB perpetration in this study. A follow-up study could also distinguish chronic affect states from emotional consequences of breaking up and execute mediation and moderation analyses, which could validate the previously offered explanations on intermediary emotions and cognitions.

Conclusion

In sum, our results show that, even when separated for several years, perpetrating mild pursuit tactics against one's former partner can be seen as a relatively common behavioral pattern. In addition to the effects of gender, education level, and social desirability, this study demonstrates that one's psychological adjustment to the breakup and one's appraisals of the initiation and causation of the breakup contribute to the perpetration of UPBs among former partners. Considering that a profound investigation of contextual breakup characteristics has received less attention in research on UPB and stalking, this study provides new information on the underlying processes of former partner pursuit besides the well-established relational and individual determinants examined in prior research. Our results suggest that breakup characteristics merits further attention in theory and empirical research and imply that clinical treatment would benefit from fostering cognitive reconstructions and adjustment to the breakup.

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CHAPTER 3

POST-BREAKUP UNWANTED PURSUIT BEHAVIOR: A REFINED ANALYSIS OF THE ROLE OF ROMANTIC RELATIONSHIP CHARACTERISTICS[1]

ABSTRACT

This study reexamined the role of romantic relationship characteristics in unwanted pursuit behavior (UPB) perpetration. Relationship characteristics were investigated accounting for the role of significant breakup characteristics, using data of 396 legally divorced adults and advanced count regressions. The main effects of characteristics of the former relationship (except conflict) did not contribute explained variance to the frequency of UPBs when controlling for the effects of significant breakup characteristics (initiator status and post-breakup negative affect). However, moderator analyses—investigating the interactions between relationship and breakup characteristics—did reveal significant effects of relationship satisfaction, alternatives, investments, and anxious attachment in interaction with initiator status and of relationship alternatives in interaction with post-breakup negative affect. These findings illustrate that the association between relationship characteristics and UPB perpetration is more complex than previously thought and are theoretically and clinically valuable.

[1]Based on De Smet, O., Loeys, T., & Buysse, A. (2012). Post-breakup unwanted pursuit: A refined analysis of the role of romantic relationship characteristics. *Journal of Family Violence*, *27*, 437–452. doi:10.1007/s10896-012-9437-1

INTRODUCTION

Since the recent vogue of research on stalking began, a relational view on unwanted pursuit has started to flourish alongside the original clinical-forensic view on "star stalkers". This resulted from the conceptualization of most stalking as a form of unwanted relationship pursuit as well as observations that stalking most often occurs between people with a shared relationship history (Spitzberg & Cupach, 2003). Cupach and Spitzberg (1998) elaborated on unwanted pursuit, which they named obsessive relational intrusion (ORI) and defined as "repeated and unwanted pursuit and invasion of one's sense of physical or symbolic privacy by another person, either stranger or acquaintance, who desires and/or presumes an intimate relationship" (pp. 234-235). Similarly, other researchers developed constructs to describe these relational intrusions; for example, UPB (Langhinrichsen-Rohling, Palarea, Cohen, & Rohling, 2000), breakup persistence (Williams & Frieze, 2005), and intrusive contact (Haugaard & Seri, 2003).

According to recent meta-analyses (Cupach & Spitzberg, 2004; Spitzberg & Cupach, 2007), the diversity of pursuit tactics can be classified into several categories. These cover a broad continuum of activities starting from relatively mild behaviors and escalating in terms of severity, frequency, duration, and impact (e.g., Langhinrichsen-Rohling et al., 2000). By most judicial definitions, stalking occurs at the point when UPBs develop into an intentional pattern of repeated behaviors that result in fear or threat. Further, whereas UPBs exclusively result from a desire for intimacy with someone who is reluctant to engage romantically with the pursuer, stalking can also evolve from other motives such as hatred or revenge (Cupach & Spitzberg, 1998, 2004; Spitzberg & Cupach, 2007).

Former partners have often been targeted in stalking and UPB studies because they represent the largest group of stalkers and pursuers (about 50%; for reviews, see Douglas & Dutton, 2001; Spitzberg & Cupach, 2007) and hold a higher risk for violent, persistent, and recurrent stalking behavior (for a review, see McEwan, Mullen, & Purcell, 2007). Self-report studies that looked at the broader continuum of UPBs demonstrated

that mild persistence behaviors are widely present and, in some cases, turn into a more severe stalking pattern. Davis, Ace, and Andra (2000), for example, found that about 40% of separated college students perpetrated at least one UPB against their ex-partner. Of this percentage, 8% to 11% perpetrated six or more UPBs, 5% admitted to engaging in vandalism and 2% in threats.

Next to the heightened prevalence of UPB and stalking among ex-partners, their impact on the target has found to be negative; UPBs are generally perceived as annoying, upsetting, privacy-violating, or (sometimes) threatening (Cupach & Spitzberg, 2000) and being stalked by a former partner entails an increased chance of experiencing multiple negative psychological consequences (Johnson & Kercher, 2009). These observations have stimulated researchers to explore which factors explain the presence of relational intrusions and grasp on the development from mild to severe pursuit.

Romantic Relationship Characteristics

Among the several types of explanatory factors, researchers have explored which early features of romantic relationships facilitate UPB perpetrations after breaking up.

Relational conflict. Empirical studies using college student samples have shown that former partner pursuit and stalking often result from high-conflict romantic relationships. These relationships are typically characterized by verbal, psychological, physical, or sexual abuse (Coleman, 1997; Langhinrichsen-Rohling et al., 2000; Roberts, 2005; Wigman, Graham-Kevan, & Archer, 2008; Williams & Frieze, 2005), control and denigration (Davis et al., 2000; Dye & Davis, 2003; Roberts, 2005), anger, jealousy, suspiciousness, and possessiveness (Dutton-Greene, 2004; Langhinrichsen-Rohling et al., 2000; Roberts, 2002; Tassy & Winstead, 2010; Wigman et al., 2008).

Adult attachment style. In addition to the role of relational conflict, the attachment theory (Bowlby, 1969, 1973, 1980) is to date the most popular psychological

theory to explain stalking and UPB perpetration (for a review, see Spitzberg & Cupach, 2007). Recent research on adult attachment accepts the two-dimensional view developed by Brennan, Clark, and Shaver (1998). Brennan et al.'s attachment anxiety dimension represents the need for approval from others, the inclination to worry about rejection or abandonment by important others, and to feel distressed when significant others are unavailable or unresponsive. The attachment avoidance dimension reflects the tendency to elude intimacy, emotional closeness, dependence, self-disclosure, and the need for self-reliance. People can score high on neither dimension (secure attachment), on one, or on both dimensions (insecure attachment). Due to the variety of interpersonal experiences throughout life, people are assumed to have a global attachment style, as well as relationship-specific attachment styles that may differ across relationships (Collins & Read, 1994).

During times of distress, such as separation, the specific attachment style corresponding to the relationship is activated and one behaves accordingly (Ainsworth, Blehar, Waters, & Wall, 1978; Vormbrock, 1993). Hence, it is not surprising that higher levels of anxious attachment (or the presence of a preoccupied or fearful attachment style) have been found to predict UPB perpetration in samples of separated students (Dutton & Winstead, 2006; Dye & Davis, 2003; Langhinrichsen-Rohling et al., 2000; Tassy & Winstead, 2010; Wigman et al., 2008; Wisternoff, 2008) as well as stalking perpetration in campus samples (Lewis, Fremouw, Del Ben, & Farr, 2001; Patton, Nobles, & Fox, 2010), forensic samples of fixated stalkers (Tonin, 2004), clinical samples of ex-partners (MacKenzie, Mullen, Ogloff, McEwan, & James, 2008), and community samples of ex-partners (Kamphuis, Emmelkamp, & de Vries, 2004). These studies generally found no correlation between the level of avoidant attachment of perpetrators and the act of UPB or stalking (e.g., Dutton & Winstead, 2006).

Investment model. In contrast with the negative relationship characteristics mentioned above, positive-toned relationship characteristics theorized in Rusbult's investment model (1980; Rusbult, Martz, & Agnew, 1998) have received little attention

in UPB research. The investment model developed out of the interdependence theory (Kelley & Thibaut, 1978; Thibaut & Kelly, 1959) which states that people become dependent on their relationship through their level of satisfaction (i.e., positive affect resulting from the fulfillment of needs by the partner) and quality of alternatives (i.e., the desirability and availability of relationship alternatives that may fulfill needs outside the relationship). The investment model adds the argument that relational dependence increases when more and important resources are invested in the relationship (*investment size*). The model also posits that people who feel more satisfied, perceive their alternatives as low in quality, and invest more in the relationship develop a stronger commitment to their relationship and, subsequently, show more persistence and relationship maintenance behaviors.

In line with these assumptions, Dutton and Winstead (2006) found a negative correlation between quality of alternatives and UPB perpetration. However, when controlling for other covariates in a multiple regression model, this effect disappeared. Similarly, Wisternoff (2008) observed a positive bivariate correlation between the level of investments and stalking perpetration that their multiple regression analysis showed to be insignificant. Next, Tassy and Winstead (2010) found that their pursuit subscale was negatively correlated with quality of alternatives and positively correlated with commitment and investment size. Investment size also positively correlated with the aggression subscale. Although the effect of investment size remained significant in their multiple regression with aggression as the dependent variable, the effects of investment size and commitment became insignificant in their multiple regression using pursuit as the outcome variable. Finally, correlations with the level of satisfaction were insignificant in these three studies, although Dye and Davis (2003) observed a positive correlation between pursuing the former partner and perceived relationship passion. In sum, the results of the limited existing research examining the investment model in the context of UPB or stalking indicate weak and inconsistent relationships that need further clarification.

The current study aimed to reexamine the link between relational conflict, adult attachment style, the investment model components, and post-breakup UPB perpetration. The added value of this study to previous studies examining pre-breakup relationship characteristics is twofold. First, the current study assessed the role of relationship characteristics by taking into account the effects of characteristics of the breakup that have found to be important in the context of UPB perpetration: (a) We tested main effects of relationship characteristics (which are, in terms of time, more *distally* related to post-breakup UPB) controlling for the main effects of breakup characteristics (which are more *proximally* related to the perpetration of post-breakup UPBs) in order to assess their explained variance on top of breakup properties' effects, and (b) we explored moderator effects of breakup characteristic—represented as the interactions between relationship and breakup characteristics—to assess whether the influence of relationship properties differed according to the condition of the breakup. Second, we addressed some methodological limitations of previous studies when testing our hypotheses.

Breakup Characteristics' Main and Moderating Effects

It is known that, among the variety of predictors, breakup characteristics strongly influence the perpetration of UPB between ex-intimates. The level of UPB depends on the participant's role in the relationship termination; namely, people whose ex-partners were the main drivers to end the relationship often engage in more UPBs (e.g., Davis et al., 2000). Also, more UPBs are shown when the ex-partner or external factors (i.e., other people, working or living conditions) are more strongly believed to have caused the separation (De Smet, Buysse, & Brondeel, 2011). Further, the emotional disturbance resulting from the breakup strongly affects the perpetration of UPBs. Such a disturbance includes a variety of emotional reactions including anger, jealousy, anxiety, loneliness, frustration, hurt, sadness, guilt, depression, or unhappiness (Davis et al., 2000; Dennison

& Stewart, 2006; De Smet et al., 2011; Dutton & Winstead, 2006; Tassy & Winstead, 2010).

Previous studies also demonstrated important interrelationships between relationship and breakup properties. Prior studies found for instance that persons who show a high preoccupied type of attachment to their relationship are less likely to initiate the breakup themselves (Barbara & Dion, 2000). Likewise, individuals who were more anxiously attached and committed to their ex-partner, who invested more in their relationship, who showed a higher level of relationship satisfaction, and who believed less in acquiring desirable alternatives tended to be more emotionally disrupted by the separation (Barbara & Dion, 2000; Saffrey & Ehrenberg, 2007; Simpson, 1987; Sprecher, Felmlee, Metts, Fehr, & Vanni, 1998; Wisternoff, 2008).

In addition to these studies that demonstrate direct associations between relationship and breakup characteristics, some UPB researchers assumed that the effects of relationship characteristics on UPBs are distinct according to specific conditions of the breakup. These researchers namely separated people having difficulty letting go of their former partner from people whose partner had such difficulty or isolated the breakup initiators from the breakup non-initiators when examining the role of relationship properties (e.g., Cupach & Metts, 2002; Dutton & Winstead, 2006; Langhinrichsen-Rohling et al., 2000; Tassy & Winstead, 2010). Although these previous UPB studies hinted at the presence of moderating effects of breakup characteristics, moderator effects have to our knowledge not yet been empirically established by running true moderator analyses. The study of moderator effects nevertheless seems important as it could advance insight into the effects of relationship characteristics. Indeed, the moderating role of breakup characteristics might reveal under which breakup conditions certain relationship characteristics will most strongly explain the perpetration of UPBs. Moderation is also especially interesting to study in order to further explore unexpected weak and inconsistent effects of variables such as the investment model components (Baron & Kenny, 1986; Frazier, Tix, & Barron, 2004).

Methodological Limitations of Previous Research

A first restriction we took into account refers to the types of samples used to study UPB and stalking among ex-intimates. Although prevalence studies on stalking have used large-scale representative community samples inside and outside Europe (e.g., Stieger, Burger, & Schild, 2008; Tjaden & Thoennes, 1998), the majority of UPB and stalking studies examining former partners have used non-European college student samples. However, Ravensberg and Miller's (2003) review illustrated that college students differ from the general adult population in their experiences of stalking. Moreover, the constructions and perceptions of UPB and stalking are culturally determined (e.g., Cupach & Spitzberg, 2004) and the legal situation of stalking differs across countries (De Fazio, 2009). This means that most existing findings on former partner UPB and stalking conducted in non-European college student samples cannot be easily generalized. Some exceptional studies have examined adult community samples of ex-partners in Europe. For example, Kamphuis et al. (2004) examined a Dutch community group of support-seeking female victims of former partner stalking. The specificity of these gendered victim reports was countered by De Smet et al.'s (2011) UPB perpetration study using a general community sample of Flemish ex-partners. Both samples were nevertheless convenient in nature and might have limited external validity as suggested by interpersonal aggression research showing divergent results among convenience and representative samples (Nielsen & Einarsen, 2008).

A second concern refers to the statistical approaches previously used to analyze the skewed distribution of perpetrated UPBs. Some researchers handled the skewed distributions by classifying participants into two or three categories (e.g., Patton et al., 2010; Roberts, 2002, 2005), resulting in the loss of meaningful variance of the continuous dependent variable. Other researchers did apply linear regression analyses on the skewed distribution, but needed to drop highly skewed subscales from the analyses (e.g., Dutton-Greene, 2004) or to reduce violations of the normality assumption (e.g., by removing persons who reported no UPBs or transforming the skewed

dependent variable; Dutton & Winstead, 2006). Yet, the use of general linear models is considered less appropriate to analyze count data (Vives, Losilla, & Rodrigo, 2006). To analyze skewed counts more advanced count models are better suited (for an overview, see Atkins & Gallop, 2007; Karazsia & van Dulmen, 2010; Long, 1997). Poisson regression is the basic model to analyze count data, but the variance of counts is often larger than the mean (overdispersion). In this case a Poisson regression with an overdispersion parameter, called the negative binomial (NB) regression, will better fit the data (e.g., Gardner, Mulvey, & Shaw, 1995). Count distributions also often consist of a large stack of zeros. Zero-inflated Poisson (ZIP) and zero-inflated NB (ZINB) models (Lambert, 1992) properly deal with such zero-inflated distributions by estimating parameters in two parts. The zero-inflation part models the probability of having *excess* zeros not accounted for by the Poisson or NB models. The counts part models the frequency of the remaining non-excess zeros and non-zeros accounted for by the Poisson or NB distributions.

Summary and Hypotheses

When former partners separate, UPBs are often displayed as part of one partner's desire to remain intimate with their former partner. Both relationship and breakup characteristics seem to explain the presence of these persistence behaviors. In this paper, we wanted to reinvestigate the role of distal pre-breakup relational determinants by controlling for the effects of important proximal breakup characteristics and to explore whether breakup characteristics moderate the association between relationship characteristics and UPB perpetration. To account for the sample-related and statistical limitations discussed in the previous section, hypotheses were tested using a Flemish adult community sample of ex-partners systematically recruited in courthouses and by applying more adapted statistical count models.

In order to test our hypotheses, different successive models were fitted. After testing a reference model that explored the role of possible control variables (i.e.,

several demographic variables and social desirability), a first model assessed the main effects of the aforementioned breakup characteristics (controlling for the significant variables from the reference model). In line with prior research, we hypothesized that the level of UPB perpetration would be higher when the perpetrator (a) did not initiate the breakup, (b) experienced more negative affect or emotional disturbance from the breakup, and (c) more strongly attributed the cause of the breakup to external factors or the ex-partner (hypotheses 1a through 1c). Controlling for the variables significant in the previous two steps, a second class of models was fitted that separately tested the main effect of each relationship characteristic of interest. We expected (based on the robust empirical effects found in previous studies) that the main effects of (a) relational conflict and (b) anxious adult attachment would add unique explained variance to the perpetration of UPBs in addition to the significant breakup characteristics. Due to the limited and inconsistent regression results described earlier, we theoretically (instead of empirically) assumed that higher levels of (c) relationship satisfaction, (d) investment size, and (e) lower quality of alternatives would increase the number of UPBs when controlling for significant properties of the breakup (hypotheses 2a through 2e). Finally, a third class of models exploring moderator effects was fitted while controlling for the variables significant in the first two steps[2]. For the moderator hypothesis (hypothesis 3), we expected, based on the interrelationships described earlier and on logic reasoning, that the negative impact of the relationship variables would be especially present in combination with UPB-enhancing breakup conditions such as not having initiated the breakup or feeling highly emotionally disturbed by the separation.

[2]Testing interaction effects is often subjected to low power, therefore, simple rather than multiple interaction effects were investigated to deflate type I errors (Cohen, Cohen, West, & Aiken, 2003; Frazier et al., 2004). To remain consistent, we investigated simple instead of multiple main effects of the relationship characteristics.

METHOD

Participants and Procedure

This study made use of a subsample of the Interdisciplinary Project for the Optimization of Separation trajectories (IPOS; www.scheidingsonderzoek.be), which is a cooperation of psychologists, lawyers, and economists from the Ghent University and the University of Leuven. This research project carried out a large-scale recruitment of formerly married partners. *All* partners who divorced between March 2008 and March 2009 in four major courts in Flanders were approached in the waiting room to participate in a study on divorce (*N* = 8,896). In the court waiting room, people received a research folder explaining the content and procedure of the IPOS-study as well as a response card whereupon they indicated their interest to participate in the study. If interested, they left their e-mail address or phone number. The respondents willing to participate in court (*N* = 3,921; response rate = 44%) were subsequently contacted by phone or e-mail to arrange the filling out of a computerized questionnaire. This questionnaire was forwarded by e-mail to participants who preferred further contact by e-mail. Participants who preferred to be contacted by phone could decide during a standardized phone conversation whether they would fill out the questionnaire (a) at home assisted by a researcher, (b) at home, alone, on their own computer (in that case the questionnaire was forwarded by e-mail), or (c) at one of the computer labs near their residence in the presence of a researcher. Both universities' ethical committees monitored the study closely. Respondents voluntarily participated and signed an informed consent form before filling out the questionnaire.

Because the total IPOS-questionnaire was very extensive, the questionnaire was divided into a general basic questionnaire package that was assigned to every IPOS-respondent (assessing standard information such as demographic data) and three specific questionnaire packages (each assessing different topics of the divorce) of which only one was randomly assigned to each participant who completed the basic

questionnaire package. The basic questionnaire package was filled out by 2,146 participants (24%) and 1,850 (21%) participants completed all questions in this package. Of the 1,850 persons who were invited to fill out one of the three additional specific questionnaire packages, 1,368 persons (15%) agreed. Based on random assignment, 447 (5%) participants received the specific questionnaire package that measured the variables of interest in this study. A sample of 396 (5%) participants were eligible for the analyses after eliminating 15 participants with invalid data on the basis questionnaire package and 36 participants who did not answer more than 25% of the UPB items[3].

The 396 participants (60% women; 99% of Belgian nationality) were on average 43.10 years old (*SD* = 9.42, range: 22–68). Participants' highest education levels were most often at a Bachelor's degree or above (40%). Formerly married participants had on average long-term relationships (*M* = 16.76 years, *SD* = 9.43, range: 1–43) and long-term marriages (*M* = 14.87 years, *SD* = 9.74, range: 0–43) with their ex-partner before the separation. Most participants had children with their former partner (78%; number of children: *M* = 2.03, *SD* = 0.93, range: 1–7). The mean time since the relationship ended was 1.80 years (*SD* = 1.87, range: 0–8.25). At the time of the study, 31% of the sample was already involved in a new romantic relationship[4]. Comparisons with the full population of individuals in divorce proceedings in Flanders in 2009 (*N* = 14,991), provided by the Belgian National Institute of Statistics (2011), indicated no meaningful differences between the study sample and the Flemish population on the mean age of the ex-partners (M_{sample} = 43.10, $M_{population}$ = 43.20), mean duration of their marriages (M_{sample} = 14.87, $M_{population}$ = 15.50), and the presence of children ($78\%_{sample}$, $76\%_{population}$). Other demographic data were not registered by this institute.

[3]In the remaining measures, we similarly controlled for drop out by making (sub)scale scores invalid in cases where more than 25% of the items were unanswered.

[4]Although being involved in a new relationship could impact reports of the broken relationship, we did not observe significant differences in the reports of "singles" and "non-singles" on the pre-breakup relationship characteristics in this study (except for quality of alternatives with singles scoring lower than non-singles).

Measures

Unwanted pursuit behavior perpetration. The Relational Pursuit-Pursuer Short Form (RP-PSF; Cupach & Spitzberg, 2004) was used to assess the extent of UPB perpetration. Using a procedure of forward and backward translations, a Dutch version of the scale was developed that was evaluated by the second author of the scale. The original instruction, "In your lifetime, how often, if at all, have you ever persistently pursued someone over a period of time for the purpose of establishing some form of intimate relationship that this person did not want, by…", was adapted to assess the perpetration of pursuit tactics against their ex-partner after a breakup. The new version read, "Since the breakup, how often, if at all, have you persistently pursued your ex-partner for the purpose of establishing some form of intimate relationship that your ex-partner did not want, by . . ." Example items are "leaving unwanted gifts (e.g., flowers, stuffed animals, photographs, jewelry, etc.)" and "threatening to hurt yourself (e.g., vague threats that something bad will happen to you, threatening to commit suicide, etc.)". The normality of relationship pursuit was stressed and participants were explicitly asked to answer as sincerely as possible and to consider the total period of time they had been separated. The 28 items were rated on a 5-point Likert scale ranging from 0 (*never*) to 4 (*over 5 times*). The items represent a rather complete reflection of the construct's content, supportive of the instrument's content or face validity, because of the clustered-typed item format and because the scale's development relied on thorough meta-analytic work of pursuit tactics reported in the literature. Factorial validity of the RP-PSF has been demonstrated by previous studies that found meaningful factor structures of, for example, two (Pursuit and Aggression; Dutton & Winstead, 2006) or three (Hyperintimacy, Intimidation, Physical Threat; Spitzberg, 2000) factors. These factors in general contain the pursuit-to-stalking continuum the scale intends to assess. Next to the use of subscales, the items can also be summed to create an overall index of perpetration, with higher scores indicating greater levels of perpetration. The measure

was reliable in the present study (α = .88), as was the case in previous research (α = .92 in Kam & Spitzberg, 2005).

Adult attachment style. Adult attachment style was assessed using a Dutch translation (Conradi, Gerlsma, van Duijn, & de Jonge, 2006) of the 12-item Experience in Close Relationships Scale-Short Form (ECR-S; Wei, Russell, Mallinckrodt, & Vogel, 2007). Instead of measuring how the participants generally felt in romantic relationships, a relationship-specific approach was taken by asking participants to imagine their former partner as well as possible and remember how they generally felt in their relationship before the breakup. The scale contains six anxious (e.g., "My desire to be very close sometimes scared my ex-partner away") and six avoidant attachment items (e.g., "I wanted to get close to my ex-partner, but I kept pulling back") answered using a 7-point Likert scale of 1 (*strongly disagree)* to 7 (*strongly agree*). Wei et al. (2007) found satisfactory psychometric properties for the ECR-S, similar to those of the original ECR (Brennan et al., 1998). The ECR-S showed a stable factor structure, acceptable internal consistencies, good test-retest reliability, and evidence of construct validity. In the present study, alphas were .73 for anxiety and .48 for avoidance. Internal consistency increased to .81 and .84 by respectively dropping one of the six anxious and three of the six avoidant attachment items. Only the five-item anxiety subscale was used in the analyses considering the unreliable nature of the avoidant attachment scale and its high negative correlation (*r* = -.62) with anxious attachment. This subscale, moreover, included the items most theoretically relevant to UPB perpetration.

Investment model. The Investment Model Scale (IMS; Rusbult et al., 1998) assesses the key constructs of the investment model. Alongside commitment level, each of its three correlates (satisfaction level, quality of alternatives, and size of investments in romantic relationships) form separate subscales. The latter three subscales include global items (general measures of each construct used to calculate subscale scores), as well as facet items (concrete exemplars of each construct which can optionally be

offered to enhance comprehensibility of the global items). To limit the length of the questionnaire, we omitted the facet items. The scale was translated into Dutch following the same procedure used for translating the RP-PSF. We modified the wording of the items so that participants focused on the relationship with their ex-partner before the breakup and we explicitly instructed the participants to consider the *total* period of their relationship. Using a 9-point Likert scale ranging from 0 (*do not agree at all*) to 8 (*completely agree*), the respondents judged five items assessing their level of satisfaction (e.g., "During the time I was together with my ex-partner, our relationship was close to ideal"), five assessing their quality of alternatives (e.g., "During the time I was together with my ex-partner, people other than my ex-partner with whom I might become involved were very appealing"), five assessing the size of their investments (e.g., "During the time I was together with my ex-partner, I put a great deal into our relationship that I have lost now our relationship has ended"), and seven assessing their level of commitment (e.g., "During the time I was together with my ex-partner, I wanted our relationship to last forever"). Rusbult et al. (1998) demonstrated satisfactory internal reliability and convergent, discriminant, and predictive validity of the IMS. In this study, alpha values were .95 for satisfaction, .80 for quality of alternatives, .76 for investment size, and .91 for commitment. We considered analyses of the commitment subscale redundant because of its theoretical and statistical overlap with satisfaction (r = .62), investment size (r = .55), and quality of alternatives (r = -.34).

Relational conflict. Based on the conflict properties subscale of the Children's Perception of Interparental Conflict Scale (CPIC; Grych, Seid, & Fincham, 1992), the level of conflict before the breakup was measured using three items that each represented a conflict property dimension. The items that referred to the frequency of conflict ("How often did you and your ex-partner have conflicts before the breakup?") and the resolution of conflict ("How often did you and your ex-partner find a solution to these conflicts?") were answered using a 5-point Likert scale ranging from 1 (*almost never)* to 5 (*almost always*). The item that referred to the intensity of the conflict ("How intense

were these conflicts before the breakup?") was answered on a 5-point Likert scale ranging from 1 (*very severe)* to 5 (*very calm*). Total scores were created by adding the scores of the three items after the latter two items were reverse scored (α = .78).

Initiator status and locus of cause. To identify the breakup initiator, participants were asked to report who wanted the breakup most (1 = *I*, 2 = *ex-partner*, 3 = *both equally*). Locus of cause was assessed using four items asking to what extent participants viewed themselves (internal attribution), versus their ex-partner and external factors such as illness or unemployment (external attributions), and their relationship as having caused the breakup using a 7-point Likert scale ranging from 1 (*completely disagree)* to 7 (*completely agree*).

Post-breakup negative affect. On a 9-point Likert scale ranging from 0 (*not at* all) to 8 (*very much*) respondents rated how strongly they currently experienced 10 negative emotions when thinking back to their breakup (anxious, angry, frustrated, sad, jealous, ashamed, guilty, hurt, depressed, and unhappy). These emotions are relevant in the context of interpersonal rejection (Leary, Koch, & Hechenbleikner, 2001) and, as noted earlier, most have been found to be related to UPB perpetration. Similar to previous studies (e.g., Dutton & Winstead, 2006), the 10 scores were summed to create one total negative affect score (α = .88).

Social desirability. An 11-item short version of the 33-item Marlowe-Crowne Social Desirability Scale (SDS; Crowne & Marlowe, 1960), developed by Ballard (1992), was used to assess the participants' inclinations to present themselves in a positive manner. Loo and Loewen (2004) recommend the use of this short version based on their psychometric evaluation of several shortened versions of the SDS. The 11 *true* (1) and *false* (2) items (e.g., "I have never deliberately said something to hurt someone's feelings") were, nonetheless, only weakly internally consistent in our study (α = .55).

Statistical Analyses

Analyses were run in SPSS 15.0 and R 2.9.0. In order to analyze the skewed frequency distribution of the dependent variable (see descriptive statistics), we applied count regression models. As described earlier, different successive models were defined to examine the role of relationship characteristics in UPB perpetration. The reference model that was tested to explore the significance of possible control variables was used to select the best fitting count regression model for the dependent variable's distribution.

Dummy coding was used as the default option for testing the effects of the categorical variables. Predictors that were measured on a continuous scale were standardized because *z* scoring diminishes potential problems with multicollinearity among the predictors. It also makes it easier to interpret significant relationships because it provides a meaningful zero point and to plot significant interaction terms (Frazier et al., 2004). We plotted the significant interactions using the predicted means of the dependent variable for representative groups (see Cohen et al., 2003; Frazier et al., 2004): three levels for each continuous predictor (the mean and two standard deviations above and two below the mean of the predictors) and each level of the categorical predictors were considered. We used two standard deviations above and below the mean to make the nature of the interaction effects more visible and to depict the effects on a wider range of UPBs.

Due to the recruitment strategy, 31 ex-couples were part of the sample. The analyses below ignored the potential interdependence within these dyads because the number of ex-couples was small comparing to the large number of individuals and because there was no strong evidence for interdependence as the correlation between the male and female UPB scores in the ex-couples was not significant (r_s = .07, p = .608). Also, randomly removing one of both ex-partners from each dyad could have been done in multiple ways and would bring in some degree of arbitrariness as the results sometimes slightly differed depending on which specific male or female ex-partner was

removed. To assure that the impact of non-independence was limited, we replicated the analyses on different samples in which one member of each ex-couple was randomly removed. The significant main and interaction effects presented below appeared to be robust as they were almost always reproduced.

RESULTS

Descriptive Statistics

Before standardizing the continuous predictors, descriptive statistics were examined (see Table 1). Situating mean scores in the predictors' range indicated that the participants' extent of anxious attachment, satisfaction, quality of alternatives, and level of negative emotions was on average low. The participants reported a moderate level of social desirability, conflict, and investment size and chiefly attributed the cause of the breakup to their ex-partner or past relationship. According to the frequencies, most participants reported that they wanted the breakup most.

The histogram displayed in Figure 1 illustrates the right skewed and highly kurtotic dependent variable's distribution. Participants perpetrated on average two to three UPBs. More than half of the sample, 63% (n = 250), reported no UPBs since the breakup, 31% (n = 124) reported between 1 and 10 UPBs, and the remaining 6% (n = 22) of the sample reported between 11 and 68 UPBs. Of the participants that did engage in UPB, most perpetrated only one (8%), two (4%), three (3%), or four (4%) behaviors. Higher numbers of perpetrated UPBs were reported by less than 3% of the participants. Table 2 indicates that the most prevalent behaviors included watching the ex-partner, monitoring the ex-partner's behavior, and making exaggerated expressions of affection. The least prevalent kind of perpetrated tactics (< 1%) were physically aggressive and threatening in nature and included showing up at places in threatening ways, sexually coercing the ex-partner, leaving or sending threatening objects, kidnapping or physically constraining the ex-partner, and physically endangering his/her life.

Table I

Descriptive Statistics and Pearson Correlations of the Independent Variables

Variable	*n*	*M* (*SD*)	Range	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
1. Anxious attachment	387	15.35 (7.61)	5–35	.12*	.06	.27**	-.07	.03	.07	-.02	-.02	.35**	-.09
2. Satisfaction	385	17.38 (11.58)	0–40	-	-.13*	.39**	-.48**	.05	-.07	-.31**	.01	.18**	.01
3. Alternatives	383	15.65 (9.66)	0–40		-	-.08	-.03	.23**	-.04	.16**	-.04	-.11*	-.23**
4. Investments	377	21.27 (9.31)	0–40			-	-.12*	-.02	.10*	-.18**	.06	.41**	.04
5. Conflict	378	9.97 (3.15)	3–15				-	-.17**	.17**	.15**	-.03	-.06	-.05
6. Locus of cause self	396	2.77 (1.65)	1–7					-	-.45**	.26**	.04	-.05	-.28**
7. Locus of cause ex-partner	396	5.02 (1.81)	1–7						-	-.19**	-.07	.14**	.11*
8. Locus of cause relationship	396	4.72 (1.91)	1–7							-	-.15**	-.13*	-.11*
9. Locus of cause external factors	396	2.50 (1.92)	1–7								-	.04	-.08
10. Negative affect	396	24.56 (18.13)	0–80									-	-.06
11. Social desirability	374	18.80 (2.03)	11–22										-
12. Initiator	396	I = 49.0%, ex-partner = 32.3%, both = 18.7%											

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

Table II

Descriptive Statistics and Frequencies of Perpetrated UPBs Since the Breakup

UPB	*M* (*SD*)	%
Leaving unwanted gifts	0.12 (0.48)	7.1
Leaving unwanted messages of affection	0.19 (0.69)	8.3
Making exaggerated expressions of affection	0.29 (0.90)	11.9
Following your ex-partner around	0.08 (0.48)	3.0
Watching your ex-partner	0.31 (0.88)	13.9
Intruding uninvited into your ex-partner's interactions	0.09 (0.45)	4.8
Invading your ex-partner's personal space	0.16 (0.64)	7.6
Involving your ex-partner in activities in unwanted ways	0.03 (0.27)	1.5
Invading your ex-partner's personal property	0.08 (0.48)	3.8
Intruding upon friends, family or coworkers of your ex-partner	0.09 (0.47)	4.8
Monitoring your ex-partner and/or his/her behavior	0.27 (0.81)	12.4
Approaching or surprising your ex-partner in public places	0.02 (0.24)	1.3
Covertly obtaining private information of your ex-partner	0.19 (0.68)	9.3
Invading your ex-partner's property	0.04 (0.27)	2.3
Leaving unwanted threatening messages	0.12 (0.60)	5.3
Physically restraining your ex-partner	0.05 (0.32)	3.8
Engaging in regulatory harassment	0.03 (0.25)	1.5
Stealing or damaging valued possessions of your ex-partner	0.02 (0.24)	1.3
Threatening to hurt yourself	0.10 (0.46)	5.8
Threatening others your ex-partner cares about	0.06 (0.43)	2.8
Verbally threatening your ex-partner personally	0.08 (0.40)	5.6
Leaving or sending your ex-partner threatening objects	0.00 (0.05)	0.3
Showing up at places in threatening ways	0.01 (0.21)	0.5
Sexually coercing your ex-partner	0.01 (0.07)	0.5
Physically threatening your ex-partner	0.03 (0.19)	2.3
Physically hurting your ex-partner	0.03 (0.21)	2.8
Kidnapping or physically constraining your ex-partner	0.00 (0.00)	0.0
Physically endangering your ex-partner's life	0.00 (0.00)	0.0

Count Model Selection and Exploring Control Variables

To explore the influence of several demographic variables and socially desirable responding on UPB perpetration, four count regression models were run; a Poisson, ZIP, NB, and ZINB regression. The likelihood ratio test, used to compare nested models, showed that the NB model better fitted the data than the Poisson model, $\chi^2(1, n = 371) = 1802.50$, $p < .001$, and that the ZINB model better fitted the data than the ZIP model, $\chi^2(1, n = 371) = 484.69$, $p < .001$, suggesting that the dependent variable's distribution was significantly overdispersed. The Vuong test for comparing non-nested models (Vuong, 1989) illustrated that the data were concomitantly zero-inflated as the ZIP model better fitted the data than the ordinary Poisson model, $V = 6.71$, $p < .001$, and the ZINB model better fitted the data than the non-zero-inflated NB model, $V = 2.30$, $p = .011$. Figure 1 also demonstrates that the predicted frequencies of the ZINB model fitted the observed UPB frequencies well. Therefore, the ZINB regression was used in all subsequent analyses.

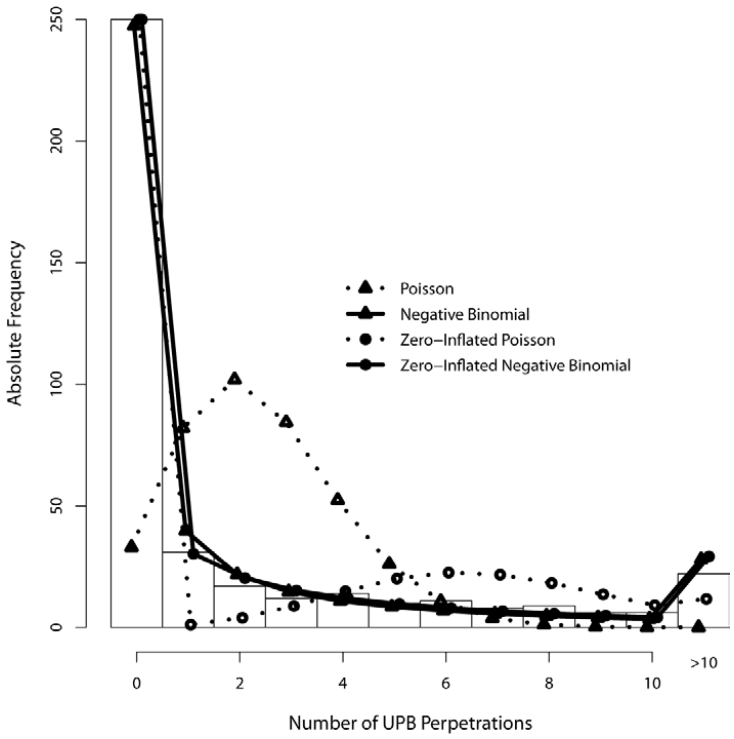

Figure 1. Histogram of observed UPB perpetrations since the breakup (*N* = 396, *M* = 2.48, *SD* = 6.29, range: 0–68, Skewness = 6.15, Kurtosis = 53.46) with predicted frequencies from different types of count regressions.

As noted earlier, this regression model consists of two parts: a zero-inflation part and a counts part. The zero-inflation part models the *excess* of zero counts in the distribution that are not accounted for by the counts part and represents a latent class of persons who can only have zero values (i.e., people who may only report no UPB perpetration, also named the *always zero group*). The counts part models the remaining non-excess zero and non-zero counts and represents a latent class of persons who can have both zero and non-zero values (i.e., people who may report UPB perpetration, also named the *not always zero group*). The zero-inflation part is a binary logistic regression predicting the probability of excess zeros or the probability of membership in the always zero group. The counts part is an NB regression modeling the frequency of non-(excess)

zero counts of persons in the not always zero group[5]. In both parts, regression coefficients are exponentiated (e^B) and called odds ratios (*OR*s) and rate ratios (*RR*s), respectively. When expressed in terms of percentage change, 100 x (e^B - 1), *OR*s reflect the percentage decrease or increase in the odds of excess zeros, whereas *RR*s represent the percentage decrease or increase in the expected non-(excess) zeros for every standard deviation increase in the independent variable while holding all other variables in the model constant. *OR*s or *RR*s that are equal to one correspond to no effect of the predictor under consideration (Atkins & Gallop, 2007; Karazsia & van Dulmen, 2010; Long, 1997).

The results of the ZINB regression testing control variables (see Table 3) showed that age and education level significantly influenced the frequency of perpetrated pursuit tactics in the counts part of the model, with older and more highly educated people showing less frequent UPB perpetrations. More specifically, the size of the *RR* in the counts part demonstrated that the chance of perpetrating an additional UPB decreased by 38% for every standard deviation increase in age. For persons having a Bachelor's degree or above (relative to participants with lower levels of education) this chance decreased by 44%.

Breakup Characteristics: Main Effects

Main effects of breakup characteristics were assessed controlling for the significant effects of age and education level. The likelihood ratio test showed a significant contribution of initiator status to both the zero-inflation and counts parts of the model, which partly confirmed hypothesis 1a (see Table 3). More specifically, the chance of excess zero UPB counts in the zero-inflation part decreased by 58% when the ex-partner, instead of the participant, wanted the breakup. The frequency of UPB

[5]A more straightforward investigation of all zeros versus all non-zeros (zero-inflation part) and of the frequency of all non-zero counts (counts part) is offered in the hurdle NB model (Mullahy, 1986). A hurdle NB model could be preferable over the ZINB model in that it offers an easier interpretation in terms of all zero versus all non-zero counts (see Loeys, Moerkerke, De Smet, & Buysse, 2012). Replication of the analyses in this paper using hurdle NB models resulted in similar conclusions.

perpetrations in the counts part decreased by 55% when both ex-partners equally wanted the breakup compared to when the participant wanted the breakup. They also decreased marginally significantly (by 41%) when both ex-partners equally wanted the breakup compared to when the ex-partner wanted the breakup. Further, in line with hypothesis 1b, every standard deviation increase in the level of negative affect lowered the odds of excess zero UPB counts (45%) in the zero-inflation part and elevated the frequency of UPB perpetrations (27%) in the counts part. The locus of cause variables did not reach significance, thereby contradicting hypothesis 1c.

Relationship Characteristics: Main Effects

Controlling for the significant effects of age, education level, negative affect, and initiator status, five separate models—one for each relationship characteristic—assessed the association between the relationship variables and UPB perpetration. Table 3 demonstrates a positive effect of the level of relational conflict on the number of UPB perpetrations in the counts part (a 35% increase) and a negative effect of the level of satisfaction in the previous relationship on the chance of excess zeros in the zero-inflation part (a 28% decrease). These findings confirmed hypotheses 2a and 2c. No evidence was found for the supposed effects of investment size, quality of alternatives, and anxious attachment. These findings contradicted hypotheses 2d, 2e, and 2b.

Table III

Summary of Significant Main Effects of Control, Breakup, and Relationship Variables on UPB Perpetrations

	Zero-inflation part		Counts part	
Variable	*OR* (e^B)	95% CI	*RR* (e^B)	95% CI
Control variables[a]				
Age	1.06	[0.61, 1.85]	0.62*	[0.40, 0.95]
Education level	0.55	[0.27, 1.12]	0.56*	[0.35, 0.91]
Breakup characteristics[b]				
Initiator				
Ex-partner versus I	0.42**	[0.22, 0.77]	0.76	[0.47, 1.21]
Both versus I	0.75	[0.35, 1.64]	0.45*	[0.24, 0.83]
Both versus ex-partner	1.80	[0.78, 4.15]	0.59†	[0.34, 1.04]
Negative affect	0.55***	[0.41, 0.74]	1.27*	[1.05, 1.54]
Relationship characteristics[c]				
Satisfaction	0.72*	[0.53, 0.98]	1.00	[0.81, 1.23]
Conflict	1.11	[0.78, 1.58]	1.35*	[1.03, 1.75]

Note. *OR* = odds ratio. *RR* = rate ratio. CI = confidence interval.

[a]n = 371. The model included gender, age, education level, having a new partner, having children with the ex-partner, length of the past relationship, time since the breakup, and social desirability. Education level was recoded into education level lower than a Bachelor's degree (reference category) and a Bachelor's degree or above. Variance inflation factors (VIFs) = 1.03–2.51. [b]n = 393. The model consisted of age, education level, and locus of cause in the counts part and initiator status and negative affect in both parts (De Smet et al., 2011). Generalized VIFs (for categorical variables with more than two levels; Fox & Monette, 1992) = 1.01–1.16. Initiator status overall contributed to the zero-inflation and counts part: respectively, $\chi^2(2, n = 393) = 8.25$, $p = .016$ and $\chi^2(2, n = 393) = 6.01$, $p = .049$. [c]$n_{satisfaction} = 383$. $n_{conflict} = 375$. Relationship characteristics were separately studied each time controlling for age and education level in the counts part and initiator status and negative affect in both parts. Generalized VIFs = 1.00–1.12.

†$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$.

Breakup and Relationship Characteristics: Moderator Effects

Despite several insignificant main effects of the relationship characteristics, the moderating effects of initiator status and post-breakup negative affect revealed several significant associations between the relationship variables and UPB perpetration that only existed for some groups of participants or were stronger for some participants than for others. This finding confirms hypothesis 3. Each interaction term between the relationship variables on the one hand and initiator status and negative affect on the other hand was separately tested controlling for the previous significant effects of age, education level, initiator status, and negative affect as well as the main effect of the relationship variable included in the interaction term.

All relationship characteristics, except conflict, interacted significantly with initiator status. Figure 2A shows that the expected negative association between quality of alternatives and UPB perpetration was only observable in cases where the ex-partner wanted the breakup and was partly present in cases where both ex-partners equally wanted to end the relationship. In contrast, quality of alternatives positively related to the number of perpetrated UPBs for participants who wanted the breakup themselves. Figures 2B to 2D demonstrate that investment size, satisfaction, and anxious attachment were positively related to UPB perpetration in cases where both ex-partners wanted the breakup, and (even more pronounced) in cases where the ex-partner wanted to end the relationship. In the group who wanted the breakup themselves, satisfaction was unrelated to UPB perpetration and the level of investments and anxious attachment were negatively related to the dependent variable.

Using negative affect as a moderator variable, only the interaction with quality of alternatives was significant. Figure 3 shows the interaction between quality of alternatives and negative affect; A lower quality of alternatives predicted more UPBs only when experiencing high levels of negative affect. Conversely, a lower quality of alternatives was associated with less UPB perpetration in cases where the participants experienced less negative emotions.

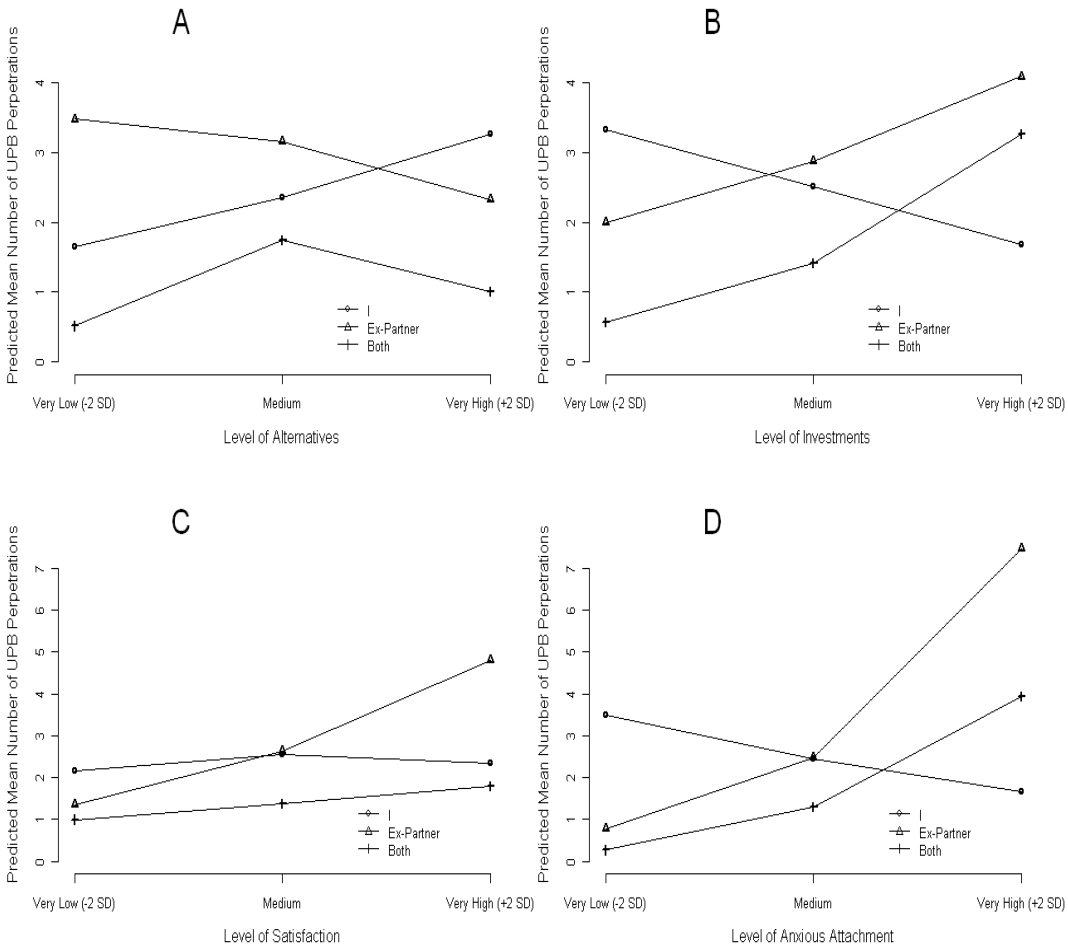

Figure 2. Plot of A) Alternatives x Initiator, B) Investments x Initiator, C) Satisfaction x Initiator, and D) Anxious Attachment x Initiator interaction. A) The interaction term contributed to the model: $\chi^2_{\text{zero-inflation}}(2, n = 381) = 12.71$, $p = .002$ and $\chi^2_{\text{counts}}(2, n = 381) = 8.28$, $p = .016$. Significant levels of initiator status: both versus I, *RR* = 0.38, $p = .014$, 95% CI [0.18, 0.83]; *OR* = 0.18, $p = .007$, 95% CI [0.05, 0.63], and ex-partner versus I, *RR* = 0.57, $p = .029$, 95% CI [0.34, 0.94]. B) The interaction term contributed to the counts part: $\chi^2_{\text{counts}}(2, n = 375) = 9.19$, $p = .010$. Significant levels of initiator status: both versus I, *RR* = 1.96, $p = .011$, 95% CI [1.17, 3.29], and ex-partner versus I, *RR* = 1.85, $p = .009$, 95% CI

[1.16, 2.94]. C) The interaction term contributed to the counts part: $\chi^2_{counts}(2, n = 383) = 6.66$, $p = .036$. Significant levels of initiator status: both versus I, $RR = 1.82$, $p = .045$, 95% CI [1.01, 3.27], and ex-partner versus I, $RR = 1.65$, $p = .021$, 95% CI [1.07, 2.53]. D) The interaction term contributed to the counts part: $\chi^2_{counts}(2, n = 385) = 9.58$, $p = .008$. Significant levels of initiator status: ex-partner versus I, $RR = 2.13$, $p = .002$, 95% CI [1.32, 3.42].

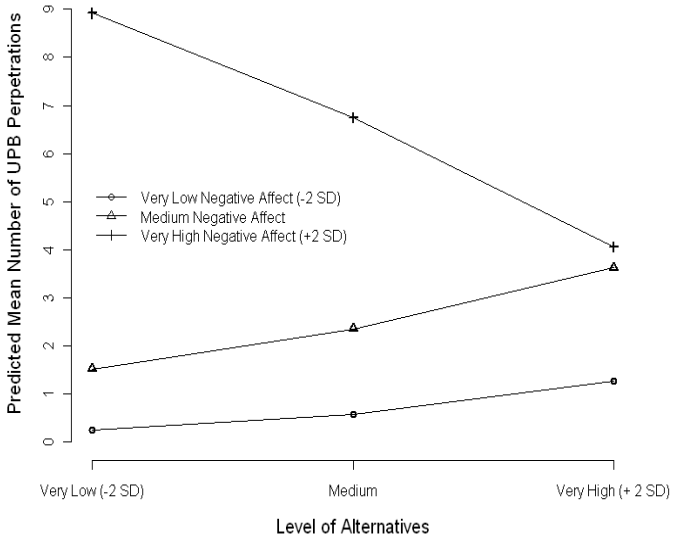

Figure 3. Plot of significant level of Alternatives x Negative Affect interaction. The interaction term reached significance: $RR = 0.77$, $p = .009$, 95% CI [0.63, 0.94].

Of the five significant interaction terms, especially the combination of a high level of anxious attachment with ex-partner initiation and the combination of a low quality of alternatives with high levels of negative affect were interesting as they seem to explain more severe patterns of unwanted pursuit consisting of up to seven or nine UPBs. The other significant interaction effects only explained changes in the amount of perpetrated behaviors that were generally situated within a range of zero to four UPBs.

DISCUSSION

Starting from the idea that UPB often follows previous romantic entanglements, this study reassessed the role of pre-breakup romantic relationship features in UPB perpetration. Different from previous studies, relationship characteristics were examined on top of and in interaction with well-known breakup characteristics. This examination was based on a unique sample of legally divorced adults and on sound statistical count models.

First, as other studies suggested (e.g., Dutton & Winstead, 2006), post-breakup negative affect was an important breakup characteristic eliciting UPB perpetration and suggesting that former partner pursuit partly reflects an inappropriate way of regulating the emotional upheaval of breaking up. Further, as in previous studies, being dumped heightened the chance of engaging in UPB (e.g., De Smet et al., 2011) and joint, bilateral initiation initiation of the breakup lowered the frequency of UPB perpetrations (e.g., Cupach & Metts, 2002). The latter authors argue that it is likely that participation in the decision to separate is less face-threatening which makes it easier to accept the dissolution. The locus of cause variables provided no significant explanations for former partner pursuit in this study.

The examination of relationship characteristics accounting for the influence of these significant breakup characteristics led to this study's main conclusion that the association between relationship characteristics and UPB perpetration is more complex than previously thought. The first interesting observation was that, except for conflict, the distal predictors situated in the relational history did not contribute explained variance to the frequency of UPB perpetrations on top of the significant breakup properties that are proximally related to former partner pursuit. The effect of conflict seems to indicate that previously antagonistic, enmeshed couples have more difficulty accepting the breakup and taking distance, irrespective of their levels of post-breakup negative affect and their role in the divorce initiation. In contrast to domestic violence, conflict has rarely been studied in relation to UPB perpetration. Although marital conflict

is not the same as domestic violence, our finding is superficially in line with research showing important empirical and conceptual links between relational stalking and domestic violence (e.g., Douglas & Dutton, 2001). Of the remaining relationship characteristics, only the level of satisfaction significantly influenced the probability of perpetrating UPB. People who felt more satisfied in their relationship were more likely to engage in any pursuit behaviors, but did not display higher numbers of UPBs as hypothesized.

Based on the insignificant main effects of most investment model variables in the present study, as well as in other studies (see Dutton & Winstead, 2006; Tassy & Winstead, 2010; Wisternoff, 2008), one could wrongly conclude that these positive-toned relationship characteristics are irrelevant predictors of former partner pursuit. However, the investigation of moderator effects revealed that satisfaction, quality of alternatives, investment size, and anxious attachment are important risk factors of pursuit that *do* matter but complexly interact with certain breakup conditions.

As hypothesized, initiator status moderated the effects of anxious attachment and all investment model variables. Specifically, a lower quality of alternatives was associated with more UPB in cases where the pursuer was dumped by the ex-partner. People who wanted the breakup themselves perpetrated less UPB even when their quality of alternatives was low. People who invested more in the relationship, felt more satisfied with the relationship, and were more strongly anxiously attached to their ex-partner pursued their ex-partner more intensely when their ex-partner or (to a lesser extent) they both equally wanted to end the relationship. When the participants themselves wanted the separation, they did not pursue their ex-partner more, even if they were more satisfied or anxiously attached, or had invested more in the former relationship. Generally speaking, ex-partner and mutual breakup initiation seemed to enhance, whereas self-initiation seemed to buffer the adverse effects of the relationship variables.

Negative affect interacted with quality of alternatives; a lower quality of alternatives was associated with more UPBs in those cases where the pursuer

experienced higher levels of negative affect. People who experienced fewer negative emotions as a result of the separation perpetrated less UPBs, even when their quality of alternatives was low. Other moderator effects of negative affect were insignificant. Negative affect might be more a mediator explaining the link between relationship characteristics and UPB perpetration rather than a moderator altering the direction or strength of this relationship. The effects of anxious attachment, relational investments, and relationship passion on UPB perpetration have namely previously been found to be mediated by breakup anger-jealousy or sadness (Davis et al., 2000; Dye & Davis, 2003; Wisternoff, 2008). Otherwise, as is often the case, low power might have hindered the detection of true interaction effects with negative affect (Frazier et al., 2004).

Despite their relevance, interaction effects between relationship and breakup characteristics on UPB have (other than mediation analyses) not been studied in the past. Instead, the only evidence pointing at the moderating effects of breakup characteristics result from UPB studies that conducted separate analyses on people having difficulty letting go of their former partner versus people whose partner had such difficulty or on breakup initiators versus breakup non-initiators. Results from these studies indirectly support our observed moderator effect of initiator status in the association between relationship properties and UPB perpetration. Specifically, a lower quality of alternatives (Tassy & Winstead, 2010) predicted higher levels of pursuit perpetration among students having difficulty letting go of their former partner, and higher levels of prior closeness (Cupach & Metts, 2002) as well as anxious attachment (Langhinrichsen-Rohling et al., 2000) predicted higher levels of (more severe) reconciliation attempts among rejected ex-partners. Because people who are more anxiously attached, who feel more satisfied, who invest more, and who perceive their alternatives as low in quality tend to persist more in their relationships (Barbara & Dion, 2000; Brennan et al., 1998; Rusbult et al., 1998), it sounds logical that being rejected by the former partner amplifies their tendency to persevere.

Our prevalence estimates showed that, in general, a minority of all ex-partners engage in UPB perpetration. Only about one third of our sample engaged in at least one

pursuit tactic. The average frequency of behaviors was low (i.e., on average two to three behaviors were shown) and especially mild UPBs were present, such as keeping an eye on the ex-partner or making exaggerated expressions of affection. Similar to other UPB studies (e.g., Davis et al., 2000), escalation in terms of highly frequent perpetration and/or engaging in threatening, aggressive UPBs was observed in only a small minority of cases even though ex-partners are known to have an elevated risk of persistent and violent stalking (e.g., McEwan et al., 2007). At the risk of extrapolating results to UPB ranges where we had a relatively small number of observations, we found indications that specific interactions between initiator status and anxious attachment and between negative affect and quality of alternatives related to a relatively high number of UPB perpetrations, whereas the other significant interaction terms only related to a restricted number of behaviors. Clearly, a doubling of the number of UPBs from two to four has less clinical implications than a doubling from four to eight, but further studies would be needed to confirm our findings at the higher ranges of UPB.

Most studies using college student samples found, relative to the present study, higher estimates of post-breakup UPB perpetration up to 97% (Williams & Frieze, 2005) or 99% (Langhinrichsen-Rohling et al., 2000). The fact that self-selective convenience samples generally show higher estimates of interpersonal aggression compared to more representative samples (Nielsen & Einarsen, 2008) might partly explain this divergence. Also, younger people, like students, are more likely to pursue their ex-partner more often according to our significant effect of age. Similar to our significant effect of age, previous studies found that younger people show more protest reactions to breaking up (such as wanting/trying to get the ex-partner back) and display greater perseveration in wanting the lost partner back (Davis, Shaver, & Vernon, 2003). Ravensberg and Miller (2003) attributed the cause of higher prevalence rates of stalking among young adults to the structure of college campuses (e.g., sharing of common spaces) and immature social skills to negotiate relationships with others. Less developed social skills, as well as heightened rates of unemployment observed among stalkers (Cupach & Spitzberg,

2004), might also explain the risk we found of having a lower than Bachelor's education level (see also De Smet et al., 2011).

Limitations, Strengths, and Implications

The current study analyzed a unique, ecological valid adult community sample of legally divorced ex-partners instead of separated students. Consequently addressing *all* divorcing partners in specific courthouses over a one year period was intended to reduce the self-selection bias of convenience sampling (in that it gave all separating people equal chance to participate) and to improve representativeness of the sample. Although there was a (typical) slight overrepresentation of women in our sample, comparisons with the total Flemish divorcing population on other demographic variables generally supported the representative nature of our sample. Presumably, highly educated people were somewhat overrepresented in our sample, but, unfortunately, information on the education level of the divorcing population in Flanders was not available. Most participants in our sample were of Belgian nationality. Although our Flemish study promotes cultural diversity of the UPB and stalking research examining former partners that is currently dominated by the use of non-European samples, future comparative research using multicultural samples would be valuable to directly address cultural differences.

Previous studies used inventive techniques to deal with the skewed, zero-inflated distributions of UPB perpetration. Tassy and Winstead (2010), for example, combined discriminant function analyses (to distinguish the non-zero from the zero counts) with linear regressions (to analyze the frequency of the transformed non-zero counts). This study, on the other hand, used more advanced zero-inflated count models that simultaneously tested two models to examine the excess zero and non-(excess) zero counts. Both models were statistically useful to fit all observations in our distribution, but especially the findings in the counts model were theoretically and clinically meaningful. Namely, not the mere presence of such behaviors but their repeated

character or frequency is a fundamental element in defining UPB and stalking (Cupach & Spitzberg, 1998, 2004; Spitzberg & Cupach, 2007). Except the significant main effect of relationship satisfaction, all other effects reached statistical significance in the counts parts of our models.

For timesaving reasons, only the perpetrator's perspective was assessed in this study. Several studies warn that—due to the presence of cognitive rationalizations—perpetrators tend to underreport the number of UPBs they exhibit (e.g., Cupach & Spitzberg, 2004; Dutton & Winstead, 2006; Sinclair & Frieze, 2005), especially when it comes to more severe pursuit tactics (Langhinrichsen-Rohling et al., 2000). However, in contrast to previous studies (e.g., De Smet et al., 2011), the present study did not show that the RP-PSF was confounded with social desirability, but this might have been due to the use of a modestly reliable scale to assess social desirability. Despite satisfying confirmatory factor analyses of the full and short SDS, the lower than psychometrically desirable reliability of the full and short scale scores appears to be a general problem of the popular Marlow-Crowne scale (Loo & Loewen, 2004) and supports the use of alternative scales in future research (e.g., the Lie scale of the Eysenck Personality Questionnaire; Eysenck & Eysenck, 1985). It is difficult to predict whether the use of a more reliable scale would have had more potential to detect response biases in UPB reports and how possible significant response biases would have influenced the other findings. In the study of De Smet et al. (2011), however, controlling for the significant effect of social desirability still resulted in meaningful effects of the predictors of interest. On the other hand, the lack of effect of self-presentation concerns in our study as well as in some other studies (e.g., Spitzberg, 2000), show there is no strong empirical basis to suggest an underestimation of the true frequency of UPBs in this sample. Moreover, comparable prevalence estimates of UPB in other ex-partner studies (37% at least one UPB in our sample versus 40% in Davis et al., 2000) and of ex-partner stalking in national victim studies (6% more than 10 UPBs in our sample versus 4% lifetime prevalence of ex-partner stalking in Dressing, Gass, & Kuehner, 2007) defend the accurateness of our data.

Further, the retrospective nature of our study likely induced recall biases present in the reports of the intact, pre-breakup relationship. Although participants were explicitly instructed to consider the complete period they were together with their ex-partner, reports of relationships after they have ended tend to be influenced by current thoughts and feelings (McFarland & Ross, 1987). More severe pursuers, for instance, are prone to idealize the lost relationship they desire (Cupach & Spitzberg, 2004) and, thus, likely glorified their past relationship in the questionnaires. Due to these biases, the current study should be considered an examination of the link between *post hoc perceived* relationship characteristics and *subjective* reports of UPB perpetration. More objective ratings of the assessed constructs could be better captured by combining self-report data of both ex-partners or by performing follow-up studies gathering information from the time relationships are still intact. Follow-up studies are, moreover, indispensable to shed light on the causal direction of the observed relationships. Future dyadic research using samples of ex-couples would also be interesting to conduct in that it could take into account the interdependence between ex-partners and reveal interpersonal effects of relationship characteristics.

To conclude, assuming we acquired accurate data based on perpetrators' reports, we found that the prevalence and severity of UPBs in a general sample of divorced partners was limited. As there are two sides to every question, the estimates we obtained can be interpreted in a two-folded way. On a negative note, it seems that a small but significant number of cases do exist in the general divorcing population that show a clinically relevant pattern of repeated and severe behaviors that deserves professional attention. On a positive note, it appears that most divorces are free of unwanted pursuit and that UPBs, if perpetrated, are most of the time less severe in nature and perpetrated with low frequency. Unfortunately, information on the receivers' subjective perceptions of these behaviors and their impact was not collected, which would be useful to further determine the genuine clinical relevance of the UPBs we observed. Next to assessing the prevalence of UPBs, the main focus of this study lay on examining the dynamics behind the perpetration of these behaviors. The current study

indicates that former partner UPB perpetration, in case it occurs, can be partly explained by the perpetrators' perceptions of the breakup context, the relational history, and their broader interactions. Especially the investigation of moderator effects contributed to the existing knowledge on relationship characteristics and can be considered theoretically and clinically valuable. For researchers, one challenge might be the refinement of theoretical models, such as the attachment theory and investment model central in this paper, as their suitability to explain UPB and stalking after breaking up seem to differ depending on the proximal conditions of the breakup. Maturation of the field in theorizing about UPB and stalking might also consist of studying the need for particular combinations or clusters of predictive factors or categorically distinct theoretical models (e.g., according to who initiated the breakup; Cupach, Spitzberg, Bolingbroke, & Tellitocci, 2011). Clinical practice involved with the identification, assessment, and management of the risk for unwanted pursuit and stalking might profit from the present and future research results that provide input to polish existing risk assessment instruments or therapy programs for pursuers and stalkers.

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CHAPTER 4

EX-COUPLES' UNWANTED PURSUIT BEHAVIOR: AN ACTOR-PARTNER INTERDEPENDENCE MODEL APPROACH[1]

ABSTRACT

Unwanted pursuit behavior (UPB) refers to a wide range of repeated, unwanted, and privacy-violating intrusions that are inflicted to pursue an intimate or romantic relationship. These behaviors most often occur when partners end their romantic entanglements. Despite the fact that UPB is grounded in relationships, psychological explanations for post-breakup UPB perpetration have been restricted to *intra*individual effects assessed in samples of separated individuals. For that reason, the present study aimed to identify feasible *inter*individual effects that additionally explain UPB perpetration using a Flemish sample of 46 heterosexual divorced couples, beginning with the notion of interdependence. Using actor-partner interdependence models, we explored actor, partner, and gender main and interaction effects of anxious attachment, satisfaction, alternatives, investments, and conflict in the previous marriage on the perpetration of post-divorce UPBs. The significant Partner x Gender interactions of anxious attachment and satisfaction, Actor x Partner interactions of anxious attachment and quality of alternatives, and the marginally significant partner effect of relational conflict underline the important role of the dyad in studying UPB perpetration. These findings shed new light on the nature of UPB perpetration that go beyond the individual and support the use of a systemic approach in clinical practices.

[1]Based on De Smet, O., Loeys, T., & Buysse, A. (in press). Ex-couples' unwanted pursuit behavior: An actor–partner interdependence model approach. *Journal of Family Psychology.*

INTRODUCTION

Despite the end of their relationship, ex-partners often remain to have contact. Particular forms of negative contact between ex-partners that have been studied include stalking or UPB. Nowadays, stalking has been codified in statutes in many states and countries around the world. Although anti-stalking codes have taken various forms, they share some key features that, according to Spitzberg and Cupach (2007), typically describe stalking as an "intentional pattern of repeated behaviors toward a person or persons that are unwanted, and result in fear, or that a reasonable person (or jury) would view as fearful or threatening" (p. 66). Relational intrusions that not necessarily reach the fear or threat threshold and are exclusively driven by intimacy motives are labeled as obsessive relational intrusion (Cupach & Spitzberg, 2004) or unwanted pursuit behavior (UPB; Langhinrichsen-Rohling, Palarea, Cohen, & Rohling, 2000). These concepts refer to activities that constitute the repeated and unwanted pursuit and invasion of an individual's physical or symbolic privacy by another person who is not involved in a consensual intimate or romantic relationship with the individual but who desires or presumes such a relationship (Cupach & Spitzberg, 2004; Langhinrichsen-Rohling et al., 2000). Whereas UPB, relative to stalking, thus refers to a smaller domain of only intimacy-motivated intrusions on the one hand, it consists of a broader domain of not merely fearful intrusions on the other hand. UPBs can be situated on a severity continuum that ranges from mildly intrusive (e.g., unwanted expressions of affection) to severely invasive tactics (e.g., hurting the target) on the more severe end of the continuum. Although stalking behaviors can be part of more extreme UPB episodes, not all UPBs are fearful and meet the legal criteria used to define stalking (Cupach & Spitzberg, 1998).

Although perpetrators of stalking and UPB can be strangers and acquaintances, half of all stalkers and unwanted pursuers are found to consist of former partners (for review, see Spitzberg & Cupach, 2007). Lifetime prevalence estimates of ex-partner stalking victimization based on a restrictive stalking definition amount to about 4% (e.g.,

Stieger, Burger, & Schild, 2008). Studies that assessed the broad range of UPBs in college students have reported that about 40% perpetrate UPBs—especially mild ones—after breaking up (Davis, Ace, & Andra, 2000).

Romantic Relationship Characteristics

Because stalking and UPB emerge mainly from previous romantic entanglements, researchers call for adopting an interactional-relational view (Spitzberg & Cupach, 2003). In that connection, several researchers have shown interest in pre-breakup romantic relationship characteristics as predictors for post-breakup stalking and UPB. Many of these researchers' hypotheses were derived from Bowlby's attachment theory (1969), Rusbult's investment model (1980; Rusbult, Martz, & Agnew, 1998), and literature that shows associations between UPB and high-conflict, violent relationships (e.g., Melton, 2007). For example, a recent study conducted by De Smet, Loeys, and Buysse (2012) showed that higher levels of conflict, anxious attachment, satisfaction, and investments in the relationship explained an increased pursuit of the former partner. The latter three associations, however, were not present when the perpetrator wanted the breakup. Lower quality of alternatives for the relationship also resulted in more UPB perpetrations when the targeted ex-partner wanted the breakup or when the perpetrator experienced a higher level of emotional upheaval after breaking up. Other studies also showed that UPB perpetration is predicted by the perpetrator's self-reported level of anxious attachment (e.g., Dutton & Winstead, 2006; Tassy & Winstead, 2010; Wigman, Graham-Kevan, & Archer, 2008), alternatives and investments (e.g., Tassy & Winstead, 2010), and jealous (e.g., Tassy & Winstead, 2010; Wigman et al., 2008), controlling (e.g., Davis et al., 2000; Dye & Davis, 2003), and abusive behavior (e.g., Wigman et al., 2008) in the former relationship. Gender differences in these associations have been largely ignored. However, there is a growing consensus that stalking and UPB are gendered phenomena and that the role of gender should be taken into account in explaining stalking and UPB (e.g., Langhinrichsen-Rohling, 2012).

Interdependency and Interindividual Effects

Despite their relational nature, the above studies solely assessed intraindividual effects (i.e., effects which show how much a person's outcome score is associated with his or her own predictor score), by linking the perpetrators' perceived relationship characteristics with their self-reported engagement in UPBs. However, as noted earlier, UPB and stalking are mainly present in former intimate relationships that consist of two interdependent relationship partners. *Interdependency* refers to the mutual affection by one another's thoughts, feelings, or behaviors and is a central principle in major theories of romantic relationships, such as the interdependence theory (Kelley & Thibaut, 1978; Thibaut & Kelley, 1959). Interdependency is an essential feature of close relationships (Kelley et al., 1983) but has also been observed in ex-couples (e.g., Sbarra & Emery, 2005). The interdependent nature of UPB perpetration has not yet been assessed. Earlier work only observed positive correlations between UPB perpetration and victimization reports in samples of separated individuals (Langhinrichsen-Rohling, 2006; Logan, Leukefeld, & Walker, 2000; Wigman et al., 2008; Wisternoff, 2008).

Because virtually all UPB studies considered ex-partners separately, the potential interindividual effects (i.e., effects which show how much a person's outcome score is associated with his or her partner's predictor score) of the above romantic relationship characteristics have not yet been explored. However, indirect evidence suggests that the level of anxious attachment, satisfaction, alternatives, investments, and conflict perceived by one ex-partner might have an impact on the other ex-partner's perpetration of pursuit tactics. This evidence derives from several romantic couple studies—not on UPB—that showed effects of one partner's level of relationship satisfaction on the other partner's level of personal commitment to the relationship (i.e., partners of more satisfied persons show more personal commitment; Givertz, Segrin, & Hanzal, 2009) and of one partner's level of relationship dependence on the other partner's level of irritation in a stressful situation (i.e., more dependent persons elicit more irritation in their partners when the couple is in stress; Campbell, Simpson, Kashy,

& Rholes, 2001). Some studies also found gender interactions for interindividual effects of relationship satisfaction on the other partner's externalizing problem behaviors (i.e., young adult men show more externalizing behavior problems when their partners are less satisfied; van Dulmen & Goncy, 2010) and of insecure attachment on the other partner's relationship satisfaction (i.e., men are less satisfied in their relationship when their partners are more anxious whereas women are less satisfied when their partners are more avoidant; Kane, Jaremka, Guichard, Ford, Collins, & Feeney, 2007). Finally, interindividual effects of insecure attachment on relationship satisfaction and violence have also been found to depend on the specific interaction of both dyad members' attachment styles (i.e., the pairing of anxious-avoidant or anxious-anxious persons in a couple deteriorate relationship dissatisfaction and violence; Mikulincer & Shaver, 2007). These findings fit with the broader knowledge that romantic relationship functioning differs for men and women (e.g., well-known gender differences in closeness and autonomy; Christensen, 1987, 1988; Feeney, 1999) and for specific interaction patterns in couples (e.g., notorious demand-withdrawal or pursuit-withdrawal patterns; Bartholomew & Allison, 2006; Christensen, 1987, 1988).

Next to these non-UPB studies with romantic couples, single-informant UPB studies that examined victims' relationship characteristics indirectly evidence that the perpetrator's behavior depends partly on the characteristics of the targeted former partner. These studies found that the likelihood or degree of UPB victimization by the ex-partner was higher when participants reported more verbal and physical abuse (Coleman, 1997) and more controlling behavior and denigration (Roberts, 2005) from their partner during the relationship, higher levels of investments (Wisternoff, 2008) and anxious attachment, and lower levels of satisfaction (Dutton &Winstead, 2006). Higher levels of UPB victimization indirectly suggest higher levels of UPB perpetration by their former partner.

Research Objectives

Although several researchers (e.g., Cupach & Spitzberg, 2004; Langhinrichsen-Rohling, 2006; Sinclair & Frieze, 2005) have articulated that the understanding of UPB and stalking would be advanced by truly relational studies that collect reports from both partners and incorporate an interdependent perspective, UPB and stalking research remains dominated by the assessment of intraindividual effects based on single-informant studies. With this gap in mind, the present study's primary objective consisted of exploring interindividual effects of the level of anxious attachment, satisfaction, alternatives, investments, and conflict in the past relationship on post-divorce UPB perpetration using a sample of divorced couples.

To guide our exploration of interindividual effects in our ex-couple sample, we used the actor-partner interdependence model (APIM; e.g., Cook & Kenny, 2005; Kenny, Kashy, & Cook, 2006). This model offers an appealing framework to model interdependence in relationships by its definition of actor and partner effects. An *actor effect* indicates how much a person's outcome is associated with his or her own characteristics (i.e., an intraindividual effect), whereas a *partner effect* indicates how much a person's outcome is associated with his or her partner's characteristics (i.e., an interindividual effect). Partner effects model the bidirectional or mutual influence that is indicative of dyadic interdependence.

Using the APIM, we investigated partner as well as actor effects of romantic relationship characteristics because both effects should be controlled for one another (Kenny & Cook, 1999). Additionally, because past research refers to potentially important and interesting interaction effects, we assessed whether gender differences in the actor and partner effects and whether specific combinations of actor and partner effects contributed to explaining UPB. On the basis of prior research, we expected positive actor effects of anxious attachment (hypothesis 1), satisfaction (hypothesis 2), investment size (hypothesis 3), and conflict (hypothesis 4) and a negative actor effect of quality of alternatives (hypothesis 5) on UPB perpetration. Given that the other effects

have not yet been validly studied in relation to UPB perpetration, we considered the main partner effects, Actor x Gender, Partner x Gender, and Actor x Partner interactions as explorative in nature and advanced no further hypotheses.

METHOD

Participants and Procedure

Ex-couple data originated from the Interdisciplinary Project for the Optimization of Separation trajectories (IPOS, www.scheidingsonderzoek.be), which organized a large-scale recruitment of divorcing partners in Flanders between March 2008 and March 2009. *All* ex-partners awaiting their divorce-related court hearing in four major Flemish courts within this period personally received a research folder and a response card whereupon they could indicate their interest to participate in the study and leave their contact details. Forty-four percent (N = 3,921) of all ex-partners (N = 8,896) that were personally invited in court agreed to participate and were further contacted by phone or email to arrange the completion of a computerized questionnaire that consisted of two parts. Among the 1,850 (21%) ex-partners who completed the first part, which consisted of a general basic questionnaire, 1,368 (15%) agreed to complete the second part as well, which consisted of a randomly assigned specific questionnaire that assessed a certain divorce topic in depth. In the event that both ex-partners participated, there was no random assignment so that ex-partners of the same dyad responded to the same questions. Of the 1,368 ex-partners, 447 (5%) received the specific questionnaire that measured the current study variables. Although the IPOS study was designed to recruit individual ex-partners, the 447 persons coincidentally included 39 ex-couples. Six ex-couples were excluded after one of the ex-partners had invalid scores on the measures below. We considered (sub)scale scores invalid if more than 25% of the items were left unanswered.

To enlarge statistical power, a similar additional recruitment was organized between December 2010 and March 2011 (in the court of Ghent), this time targeted at ex-couples. Only when both ex-partners expressed their willingness to participate did each ex-partner receive an envelope in the court's waiting room that contained the present study's question(naire)s and a pre-paid return envelope. Of the 197 invited ex-couples, 83 (42%) agreed to participate, and 14 (7%) returned the questionnaire package. We eliminated the data of one ex-couple because of one of the ex-partner's invalid scores.

In total, 46 heterosexual ex-couples were eligible for the analyses (i.e., 33 IPOS ex-couples and 13 additionally recruited ex-couples). These ex-couples ended their relationship on average 1.35 years earlier (*SD* = 1.55, range: 0–8.25) after a relationship of on average 20.86 years (*SD* = 8.27, range: 5–40). Men were on average 47.07 (*SD* = 8.30, range: 30–70) and women 44.80 (*SD* = 7.88, range: 28–64) years old. One third of all men (40%) and women (37%) reported having at least a bachelor's degree. Compared to the ex-couples recruited in the IPOS study, the additionally recruited ex-couples had broken up more recently, $t(76) = 4.95$, $p < .001$, but did not differ on the other demographic characteristics or on the measures below. The ethical committees of the universities involved in the project approved the study. All ex-couples participated anonymously and voluntarily and signed an informed consent form before completing the questionnaires.

Measures

Unwanted pursuit behavior perpetration. To assess the perpetration of UPBs toward the ex-partner, we used an adapted forward and backward translated Dutch version of the Relational Pursuit-Pursuer Short Form (RP-PSF; Cupach & Spitzberg, 2004). People reported how often, if at all, they persistently pursued their ex-partner since the breakup for the purpose of establishing some form of intimate relationship that their ex-partner did not want by, for example, "leaving unwanted gifts (e.g., flowers, stuffed

animals, photographs, jewelry, etc.)" or "following him or her around (e.g., following the ex-partner to or from work, school, home, gym, daily activities, etc.)." On a 5-point Likert scale (0 = *never* to 4 = *over 5 times*), participants indicated how frequently they engaged in the 28 clustered items. The use of general clusters exemplified by an infinite list of specific behaviors implies that the instrument covers a wide list of tactics. This typical design as well as the scale's representation of major order categories of behaviors derived from thorough meta-analytic work (Cupach & Spitzberg, 2004) supports the content validity of the instrument. An overall index of perpetration was created by summing up all items as research to date not yet identified a clear factor structure of the scale (e.g., Dutton & Winstead, 2006). Additionally, factor analyses with skewed items measured on an ordinal level are less reliable and there is still no agreement on objective criteria that could distinguish the less and more serious forms of UPB that meet stalking definitions (e.g., Purcell, Pathé, & Mullen, 2004; Thompson & Dennison, 2008). Highly severe behaviors were moreover (nearly) not present in our sample (cf., infra). The 28-item measure was reliable in this study: $\alpha = .81$.

Adult attachment style. An adjusted version of the Experience in Close Relationships Scale-Short Form (ECR-S; Wei, Russell, Mallinckrodt, & Vogel, 2007) assessed the participants' level of anxious and avoidant adult attachment style in their ex-partner relationship. The translation of the six anxious and six avoidant attachment items was derived from the Dutch version of the full ECR (Brennan, Clark, & Shaver, 1998) by Conradi, Gerlsma, van Duijn, and de Jonge (2006). People were asked to recall how they generally felt in their romantic relationship when answering the anxious (e.g., "I worried that my ex-partner didn't care about me as much as I cared about him/her") and avoidant (e.g., "I was nervous when my ex-partner got too close to me") attachment items on a 7-point Likert scale (1 = *strongly disagree* to 7 = *strongly agree*). In Wei et al.'s study (2007), the ECR-S proved to be a reliable (in terms of internal consistency, test-retest reliability) and valid (in terms of factorial and construct validity) alternative to the full ECR. In our sample, the avoidant attachment scale was unreliable ($\alpha = .53$ with $\alpha =$

.79 if half of the items were dropped) and excluded from the analyses. The anxious attachment subscale performed better: α = .80 and α = .84 after omitting one reverse-scored item.

Investment model. The investment model components were assessed using a forward and backward translated Dutch version of the Investment Model Scale (IMS; Rusbult et al., 1998). The wording in the scale was modified so that ex-partners focused on the total period of their past relationship and judged their pre-breakup level of satisfaction (five items, e.g., "During the time I was together with my ex-partner, our relationship made me very happy"), quality of alternatives (five items, e.g., "During the time I was together with my ex-partner, my needs for intimacy, companionship, etc., could have easily been fulfilled in an alternative relationship"), size of investments (five items, e.g., "During the time I was together with my ex-partner, I invested a great deal in our relationship compared with other people I know"), and level of commitment (seven items, e.g., "During the time I was together with my ex-partner, I was committed to maintaining my relationship with my ex-partner"). These items were answered using a 9-point Likert scale (0 = *do not agree at all* to 8 = *completely agree*). Rusbult et al. (1998) obtained solid evidence regarding the reliability and the factorial, convergent, discriminant, and predictive validity of the scale. In the current sample, the scale also performed well in terms of internal consistency: .85 for commitment, .93 for satisfaction, .83 for quality of alternatives, and .77 for investment size. Because the latter three subscales overlapped with the commitment subscale (all *r*s significant at the .01 level), we eliminated the commitment subscale from the analyses. The three subscales were expected to give most detailed information on the relation between the investment model and UPB perpetration.

Relational conflict. Three items assessed the frequency ("How often did you and your ex-partner have conflicts before the breakup?" 1 = *almost never* to 5 = *almost always*), intensity ("How intense were these conflicts before the breakup?" 1 = *very*

severe to 5 = *very calm*), and resolution ("How often did you and your ex-partner find a solution to these conflicts?" 1 = *almost never* to 5 = *almost always*) of pre-breakup conflict. These items stem from the conflict properties dimensions described in the Children's Perception of Interparental Conflict Scale (CPIC; Grych, Seid, & Fincham, 1992). After reverse scoring the latter two items, we summed up the three items (α = .81).

Statistical Analyses

Analyses were run in IBM SPSS Statistics 19 and plots were generated in R 2.9.0. To avoid the independent observations assumption, made when analyzing dyadic data with traditional statistical procedures (i.e., with person instead of couple as the unit of analysis), the APIM was used. Before running the APIM analyses, the data were reorganized in a pairwise structured data matrix (Cook & Kenny, 2005; Kenny et al., 2006).

The APIM hypotheses were tested with a separate model for each predictor in order to account for the relatively small sample size. Each model consisted of the intercept, main actor, partner, and gender effect, as well as all two-way interactions between these main effects (i.e., Actor x Gender, Partner x Gender, Actor x Partner). If none of the interaction terms were significant, conclusions were based on a simplified main effects model. Standardized grand-mean-centered scores of the predictors were used. Grand-mean centering (e.g., Kenny et al., 2006) implies that the mean that was subtracted from the individual predictor scores was not the (fe)males' mean for the (fe)males' scores, but the grand mean of the dyads' average scores on the predictors.

Because the number of perpetrated UPBs in the current study was a right skewed count outcome (see Figure 1), the linear mixed model (LMM; e.g., Laird & Ware, 1982), which is widely used to estimate actor and partner effects when dealing with correlated Gaussian outcomes measured at interval level (Cook & Kenny, 2005; Kenny et al., 2006), was not appropriate. Loeys and Molenberghs (in press) recently showed how a

generalized estimating equation (GEE; Liang & Zeger, 1986) approach can be used to estimate actor and partner effects when one has to deal with correlated non-Gaussian outcomes, such as our interdependent count outcomes. Here, we present results based on this GEE-approach and assessed significance of the estimated effects with the robust Wald χ^2 test. In the models' specifications, the negative binomial (NB) distribution and its related log link function were defined. Although Poisson regression is the basic model for count data, the predicted frequencies under the NB distribution better fitted our observed number of perpetrated UPBs (see Figure 1). This NB distribution is an extension of the Poisson distribution that allows for overdispersion in the data (e.g., Hilbe, 2011; Karazsia & van Dulmen, 2010).

With 46 couples available for analysis, and assuming a NB distribution with an overall rate of UPBs that was similar to the one observed in our sample and a within-dyad correlation reflecting the structure of our data, the study had about 90% power (50%, respectively) to detect at the 5% significance level a main actor or partner effect for which a one *SD* increase in the predictor value leads to a 50% (25%, respectively) increase in the mean number of UPBs. The power calculations for the interaction effects were performed under the same assumptions. For the interactions, the study had about 80% power to detect an actor or partner effect that is twice as large in men than women, or vice versa.

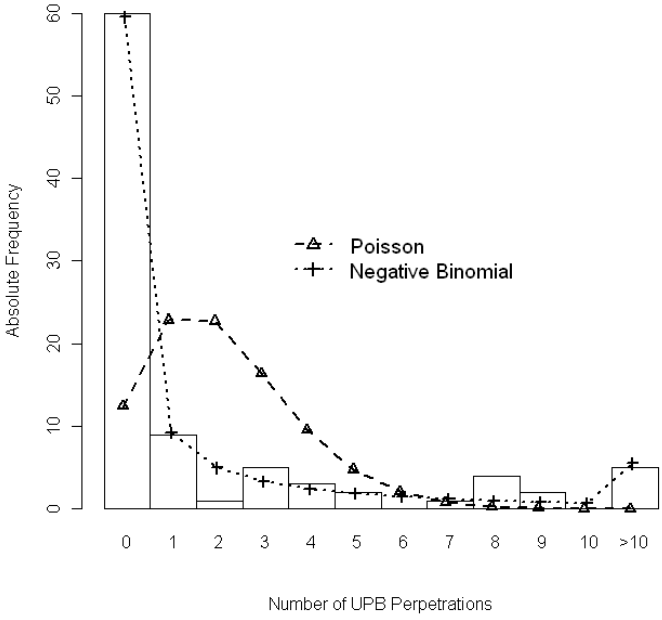

Figure 1. Histogram of observed UPB perpetrations since the breakup (N = 92, M = 2.18, SD = 4.88, range: 0–26, Skewness = 3.18, Kurtosis = 11.22) with predicted frequencies from the Poisson and NB regression model.

RESULTS

Descriptive Statistics and Correlations of the Study Variables

Table 1 presents the means, standard deviations, and correlations of all variables for the male and female ex-partners. Paired samples t tests were conducted to assess gender differences in the variables' means. Only two t tests reached significance and showed that women felt less satisfied in their relationship with their ex-partner and that they perceived the quality and availability of their relationship alternatives as lower than did their male counterparts: $t(45) = -2.80$, $p = .007$ and $t(45) = -2.05$, $p = .046$,

respectively. The mean UPB scores showed that women perpetrated on average two to three UPBs and men on average one to two UPBs. To assess gender differences in these mean UPB scores, we used a robust Wald χ^2 test in a GEE model with gender as predictor instead of the *t* test statistic, which does not allow for such skewed count data. The test was insignificant: Wald $\chi^2(1) = 1.78$, $p = .182$.

With respect to the types of tactics, men and women appeared to engage in the same kind of post-divorce UPBs. The top three prevalent behaviors perpetrated by women consisted of monitoring the ex-partner's behavior, watching the ex-partner, and making exaggerated expressions of affection. Men's top three similarly consisted of watching the ex-partner, making exaggerated expressions of affection, and covertly obtaining private information on the ex-partner. Physically aggressive and threatening behaviors were reported least. Neither men nor women in our sample reported approaching or surprising the ex-partner in public places, stealing or damaging valued possessions of the ex-partner, leaving or sending the ex-partner threatening objects, showing up at places in threatening ways, kidnapping or physically constraining the ex-partner, and physically endangering the ex-partner's life. In general, 65% of our 92 participants showed no UPBs, 29% between 1 and 10 UPBs, and only 5% more than 10 UPBs (with a maximum of 26). For a more extensive report of the prevalence of UPB perpetration in Flemish ex-partners obtained in the large and representative IPOS sample, we refer to De Smet et al. (2012).

The within-dyad correlation for the dependent variable in Table 1 is normally used to measure interdependence in distinguishable dyads (Cook & Kenny, 2005; Kenny et al., 2006). This correlation turned out to be relatively small and negative ($r = -.10$, $p = .525$). Given the possibility of bias arising from the skewed UPB distribution, a simple NB model that regressed the females' outcome scores on the males' ones was additionally tested. This test corroborated the independent nature of both types of scores ($e^B = 0.94$, $p = .299$).

Table I

Descriptive Statistics and Pearson Correlations of the Study Variables

Variable	*M* (*SD*)	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*
Male ex-partner													
1. UPB perpetration	1.57 (2.79)	-	.37*	-.11	-.18	.22	.24	-.10	-.16	-.24	.00	-.15	.21
2. Anxious attachment	12.34 (6.70)		-	-.25	-.03	.44**	.31*	-.08	.01	-.02	-.19	.03	.17
3. Satisfaction	20.24 (9.91)			-	-.04	.11	-.52***	.21	.15	.17	.23	.01	-.08
4. Alternatives	17.54 (9.99)				-	.09	.15	.00	.36*	.12	.08	.33*	-.20
5. Investments	20.97 (8.97)					-	.16	-.04	-.05	-.11	.04	.00	.06
6. Conflict	9.09 (2.86)						-	.05	.10	-.03	.00	.01	.19
Female ex-partner													
7. UPB perpetration	2.80 (6.30)							-	.41**	.23	.34*	.32*	.04
8. Anxious attachment	12.28 (7.20)								-	.10	.01	.52***	-.04
9. Satisfaction	14.96 (9.99)									-	-.04	.36*	-.46**
10. Alternatives	13.65 (8.96)										-	-.01	-.13
11. Investments	22.02 (8.96)											-	-.17
12. Conflict	9.84 (3.24)												-

Note. N = 46 male and 46 female ex-partners.

*p < .05. **p < .01. ***p < .001.

Actor-Partner Interdependence Model Effects

The Wald χ^2 tests, the estimated parameters, and 95% confidence intervals are shown in Table 2. In order to interpret the predictors and to obtain estimates on the original outcome scale, we exponentiated the log-transformed parameter estimates from the SPSS output (e^B). The exponentiated parameters, called rate ratios (*RR*s), showed the amount of change in the expected UPB counts for each *SD* increase in the independent variable, controlling for the other predictors in the model. Using the simple formula 100 x (e^B - 1), these *RR*s express the percentage change in the expected counts. *RR*s below one correspond to a negative effect, *RR*s above one to a positive effect, and *RR*s equal to one to no effect of the predictor under consideration (e.g., Hilbe, 2011; Karazsia & van Dulmen, 2010).

In the models assessing the APIM effects of investment size and relational conflict, no significant two-way interactions emerged. For these variables, results from the main effects models are therefore presented. Those models pointed at a significant positive actor effect of investments (in line with hypothesis 3) and a marginally significant positive partner effect of conflict in the previous relationship (p = .073) on post-breakup UPB perpetration. The expected actor effect of conflict (cf., hypothesis 4) was not significant. For every *SD* increase in the actors' level of investments and in the partners' perceived level of relational conflict, the expected number of UPBs shown by the actors increased by 94% and 30%, respectively.

Table II

The Actor-Partner Interdependence Model Effects of Relationship Characteristics

Effect	*RR* (e^B)	95% CI	Wald $\chi^2(1)$
Investments			
Actor	1.94	[1.33, 2.84]	11.77***
Partner	0.95	[0.67, 1.35]	0.09
Gender	0.83	[0.54, 1.27]	0.75
Conflict			
Actor	1.23	[0.84, 1.78]	1.15
Partner	1.30	[0.98, 1.74]	3.21†
Gender	0.71	[0.45, 1.10]	2.38
Satisfaction			
Actor	1.20	[0.80, 1.80]	0.82
Partner	0.97	[0.69, 1.37]	0.02
Gender	0.75	[0.46, 1.22]	1.36
Actor x Gender	0.74	[0.47, 1.16]	1.68
Partner x Gender	0.55	[0.39, 0.77]	12.37***
Actor x Partner	0.99	[0.71, 1.38]	0.00
Alternatives			
Actor	1.01	[0.62, 1.64]	0.00
Partner	1.03	[0.73, 1.44]	0.02
Gender	0.77	[0.51, 1.16]	1.57
Actor x Gender	0.53	[0.34, 0.80]	8.95**
Partner x Gender	0.93	[0.67, 1.27]	0.23
Actor x Partner	0.71	[0.53, 0.94]	5.57*
Anxious attachment			
Actor	2.86	[2.02, 4.05]	35.19***
Partner	0.98	[0.68, 1.41]	0.10
Gender	0.85	[0.58, 1.23]	0.77
Actor x Gender	1.15	[0.81, 1.63]	0.61
Partner x Gender	0.58	[0.41, 0.82]	9.70**
Actor x Partner	0.57	[0.38, 0.84]	8.03**

Note. $N = 46$. *RR* = rate ratio. CI = confidence interval.

†$p < .10$. *$p < .05$. **$p < .01$. ***$p \leq .001$.

In the remaining models, several significant interaction effects were observed. Interpretation of them was facilitated by means of the graphical presentations in Figures 2 and 3, which plot the predicted means of our outcome measure for representative groups. These groups included women versus men for the interactions with the categorical gender variable and +/- 2 *SD* from the mean of the continuous partner variables for the Actor x Partner interactions (cf., Frazier, Tix, & Barron, 2004). The satisfaction model did not show a significant actor effect (vs. hypothesis 2) but a significant Partner x Gender interaction. As can be seen in Figure 2A, higher levels of pre-breakup satisfaction of female partners reduced the number of UPBs perpetrated by their men, whereas higher levels of satisfaction of male partners raised the number of UPBs perpetrated by their women.

The quality of alternatives model revealed both a significant Actor x Gender and Actor x Partner interaction. According to Figure 2B, male actors perpetrated more UPBs when their levels of pre-breakup alternatives decreased (in line with hypothesis 5), whereas female actors engaged in more UPBs when their levels of alternatives increased (vs. hypothesis 5). The Actor x Partner interaction is displayed in Figure 3A (separately for men and women because of the differential actor effect according to gender). This figure refined the Actor x Gender interaction for particular combinations of actor and partner levels of alternatives. In particular, the steepest increase in men's perpetrated UPBs was observed when men with low levels of alternatives separated from women with high levels of alternatives. The steepest increase in women's perpetrated UPBs appeared when women with high levels of alternatives separated from men with low levels of alternatives.

Finally, the APIM for anxious attachment demonstrated a significant Partner x Gender effect as well as a significant actor effect (confirming hypothesis 1) that interacted with the partner scores on anxious attachment. The Partner x Gender interaction in Figure 2C showed that increasing pre-breakup anxious attachment levels of women lowered the number of UPBs perpetrated by men, whereas increasing anxious attachment levels of men raised the number of UPBs perpetrated by women. The Actor x

Partner interaction in Figure 3B (again displayed separately for men and women due to the significant Partner x Gender interaction) showed that UPB levels were higher when more anxious men or women separated from less anxious partners. UPB levels were also considerably higher when more anxious women separated from a more anxious male partner compared with when more anxious men separated from a more anxious female partner. This latter gender difference is related to the Partner x Gender interaction.

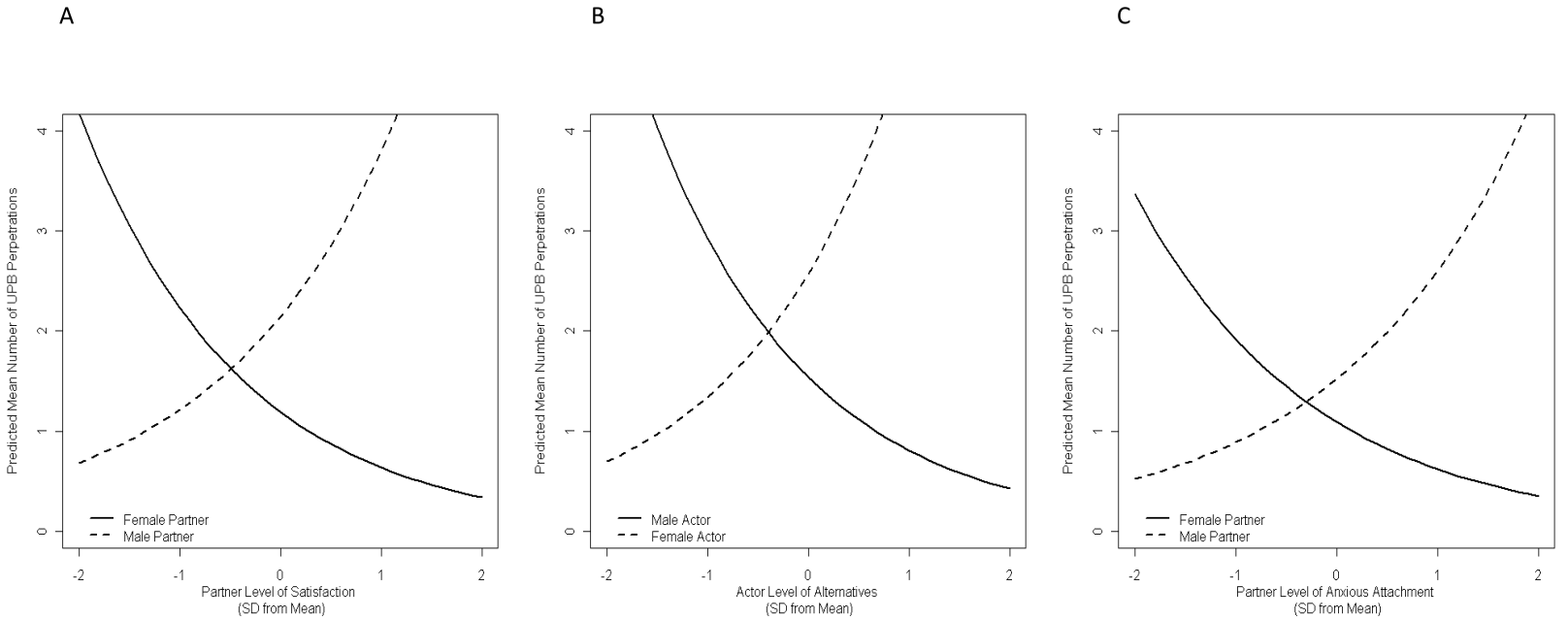

Figure 2. Plot of significant A) Partner x Gender interaction for level of satisfaction, B) Actor x Gender interaction for level of alternatives, and C) Partner x Gender interaction for level of anxious attachment.

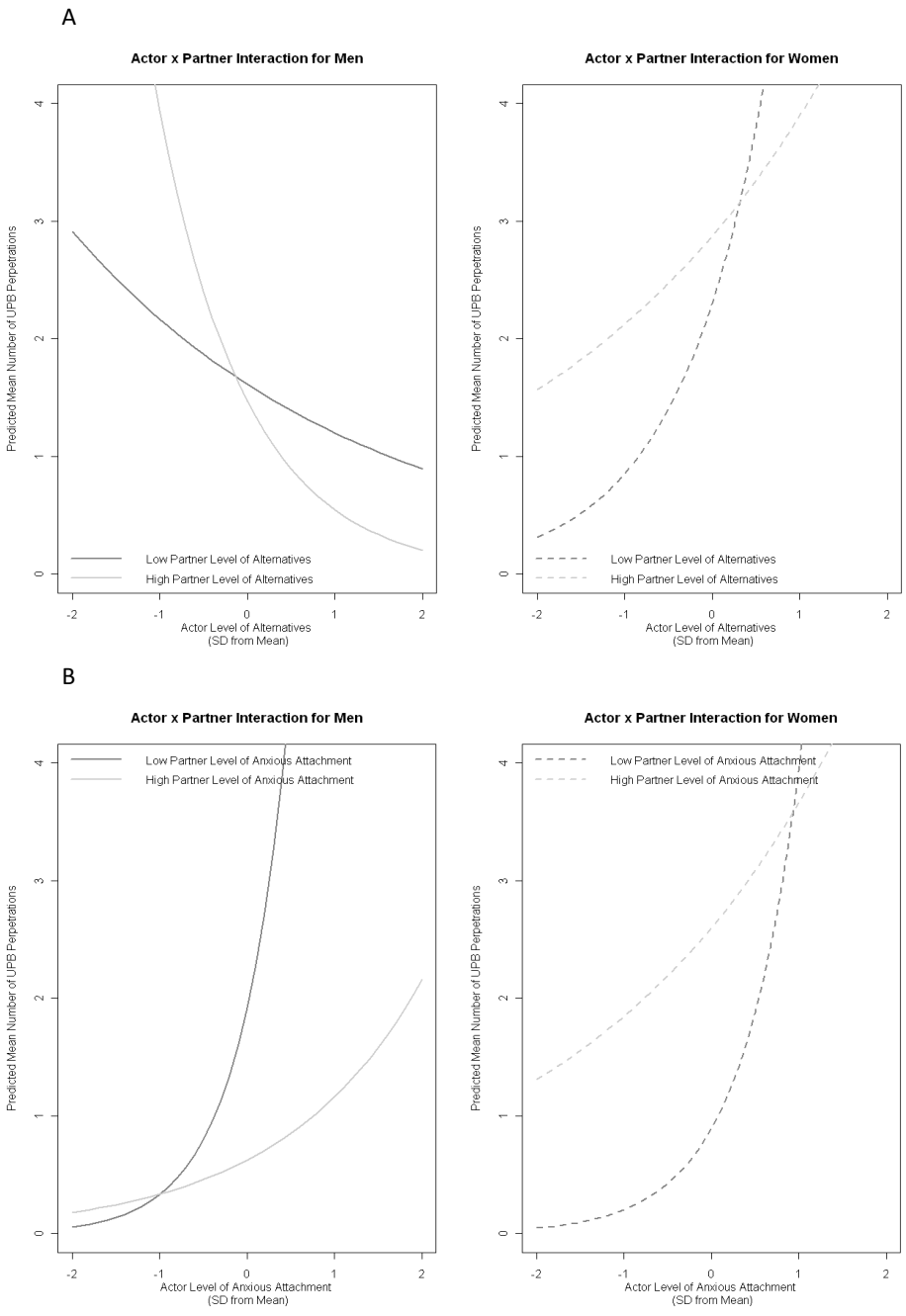

Figure 3. Plot of significant A) Actor x Partner interaction for level of alternatives and B) Actor x Partner interaction for level of anxious attachment.

DISCUSSION

Because UPB is inherently a relational phenomenon that has been mainly explained by intraindividual effects, the present paper's general aim was to identify feasible interindividual effects to explain ex-couples' UPB. Specifically, for a sample of 46 divorced couples, several APIMs were analyzed using GEEs in order to assess actor, partner, and gender main and interaction effects of romantic relationship characteristics. Overall, by treating the dyad as the unit of analyses, this paper clearly illustrates partner effects that provide new explanations for UPB perpetration. Although the correlation between the male and female ex-partners' numbers of perpetrated UPBs was not supported, the partner effects demonstrate the interdependent nature of UPB perpetration as they, by definition, model nonindependence (Cook & Kenny, 2005; Kenny et al., 2006). The insignificant correlation in UPB perpetration reports of our dyad members deviated from the positive correlations between UPB victimization and perpetration reports observed in separated individuals (Langhinrichsen-Rohling, 2006; Logan et al., 2000; Wigman et al., 2008; Wisternoff, 2008). However, the latter positive correlations might reflect biased perceptions of the respondents (e.g., perpetrators might justify their behaviors by reporting victimization; Logan et al., 2000) rather than a real correspondence in perpetrated behaviors in ex-dyad members.

Interindividual Effects

The APIMs of satisfaction and anxious attachment uncovered some interesting partner effects that explained the perpetration of UPBs. The partner effects of both relationship characteristics differed for male and female ex-partners: More satisfied female partners as well as more anxiously attached female partners reduced the number of pursuit tactics shown by male ex-partners, whereas female ex-partners who separated from a more satisfied male partner or a more anxiously attached male partner reported using a higher number of tactics. Similar Partner x Gender interactions have been

described in the relationship research literature (Kane et al., 2007; van Dulmen & Goncy, 2010). In spite of the comparability with other studies, the main question remains unanswered: Why do men pursue more satisfied or more anxiously attached women less and why do women pursue more satisfied or more anxiously attached men more intensely? A possible explanation may be rooted in gender differences in the central dialectical tension between closeness and autonomy in relationships (Baxter, 1990). In general, women desire more closeness and men more autonomy (e.g., Christensen, 1987, 1988; Feeney, 1999), conceivably because women are more socialized to be affiliative and caretaking and men to be independent and self-reliant (e.g., Surra & Longstreth, 1990). In the context of our findings, more satisfied or anxiously attached men might match women's characteristic desire for closeness or appeal to women's caretaking tendencies, intensifying women's impetus to maintain or reestablish the broken relationship. Additionally, more satisfied or anxiously attached women are more likely to interfere with men's typical need for autonomy in the relationship, making these women less attractive to pursue. This autonomy-closeness explanation seems especially plausible in view of research showing that anxiously attached women have more problems in regulating closeness and distance (e.g., Feeney, 1999).

The Actor x Partner interaction of anxious attachment further showed that the pairing of a highly anxious actor and a highly anxious partner resulted in more UPB perpetration by women than men. Again, this could relate to the autonomy-closeness explanation. Moreover, the pairing of a highly anxious actor and a partner with low anxiety resulted in a steep increase of UPB perpetration for both genders. For the latter couples, it seems probable that divergent (attachment-related) desires for proximity and intimacy created an escalating vicious circle in which the highly anxious actors increased their demands for intimacy as a reaction to their partners' increased withdrawal. Such a demand-withdrawal (Christensen, 1987, 1988) or pursuit-withdrawal (Bartholomew & Allison, 2006) pattern, which tends to occur in couples with incompatible attachment needs, is an important predictor of relationship dissatisfaction and violence (Mikulincer & Shaver, 2007). This destructive type of interaction may also provide an explanation for

UPB perpetration, especially because UPB participants per definition have incompatible relational goals and definitions (Cupach & Spitzberg, 2004).

The analysis of relational conflict revealed a marginally significant positive partner effect, as could be indirectly expected based on single-informant UPB victimization studies (e.g., Coleman, 1997; Roberts, 2005). However, contradicting several other studies (e.g., Dye & Davis, 2003; Wigman et al., 2008), no significant positive actor effect of relational conflict was observed. In a similar vein, Langhinrichsen-Rohling et al. (2000) found that perpetrators' UPBs were not explained by their reports of relationship violence, but rather by their reports of positive relationship characteristics such as higher levels of friendship love. In contrast, levels of UPB victimization were highly significantly related to victims' reports of relationship violence and other negative relationship characteristics such as lower levels of friendship love. Consequently, in line with Langhinrichsen-Rohling et al. (2000), we assume that actors perceive positive motives more readily than negative ones for their UPBs, whereas their partners explain the UPBs by recalling negative features of the perpetrator and their failed relationship. This assumption also fits the typical rationalizations of pursuers (Cupach & Spitzberg, 2004) and the discrepancy in individual attribution styles between the pursuer's and the target's perspective (e.g., Sinclair, 2012), but needs to be further validated.

Intraindividual Effects

Based on previous work, we expected actor effects of all relationship characteristics. However, apart from negating the actor hypothesis of relational conflict, our results also contradicted the hypothesized actor effect of satisfaction. Instead, partner effects of these relationship characteristics, as discussed above, were observed. The fact that we, by considering both actor and partner effects in our models, observed partner instead of actor effects might indicate that the actor effects of conflict and satisfaction found in previous studies (e.g., De Smet et al., 2012) were confounded with unmeasured partner effects. As argued by the APIM originators (e.g., Cook & Kenny,

2005), it is important to avoid confounding actor and partner effects by controlling for partner effects when assessing actor effects and controlling for actor effects when assessing partner effects.

Even when controlling for partner effects, the expected actor effects of anxious attachment and investments were shown to be robust predictors of UPB perpetration that support the existing evidence for actor effects (e.g., De Smet et al., 2012; Dutton & Winstead, 2006; Tassy & Winstead, 2010; Wigman et al., 2008). The expected negative actor effect of alternatives was also confirmed, albeit only in male actors. Next to the Actor x Gender interaction, the Actor x Partner interaction effect of alternatives was also significant. These interactions refine the previously found actor effects of alternatives in the literature (e.g., De Smet et al., 2012; Tassy & Winstead, 2010), but are difficult to explain. However, they might fit Duntley and Buss' (2012) evolutionary theory of stalking that perceives stalking as a strategy to solve human mating problems. In this theory, men's reproduction success is believed to depend on mating with multiple partners and on successfully competing with other men for sexual access to women. Women, on the other hand, are supposed to be choosier than men when selecting mates because women's larger investments in reproduction make a poor mate choice more costly. Men's stronger orientation towards alternatives (cf., Duntley & Buss, 2012; Rusbult et al., 1998) might then explain why men in our sample less frequently pursued their ex-partner when they had more alternatives for the relationship and why they more frequently pursued their ex-partner when they lacked alternatives (especially when their females' alternatives were higher and they had to compete with more men). Women's selectivity and their related stronger commitment to their relationships (cf., Duntley & Buss, 2012; Rusbult et al., 1998) might consequently explain why even when women in our sample had more relationship alternatives, they still preferred to pursue their ex-partner. This finding was amplified when their male ex-partners lacked alternatives, potentially because it made them more accessible. These hypotheses await further empirical tests.

Strengths, Caveats, and Conclusion

This study contributes to the existing research in several ways. To our knowledge, it is the first to have recruited a sample of ex-couples and to have applied the APIM to gain insight in the relational nature of UPB. The inclusion of actor, partner, and gender effects of romantic relationship characteristics in our APIMs revealed several intra- and interindividual effects that broaden the knowledge on UPB perpetration. Furthermore, because of the non-Gaussian distribution and the negative within-dyad correlation, we used GEEs. This method enables to analyze a wider variety of data with the APIM (Loeys & Molenberghs, in press) and appears a valuable tool for researchers interested in the study of the dyadic nature of deviant relational phenomena, which is mostly hampered by skewed distributions.

Alongside these strengths, this study is not without its limitations. First, despite significant recruitment efforts in court, we ended up with a sample of only 46 valid ex-couples. Although court houses offer an interesting environment where both ex-partners can be met simultaneously when still in the process of divorce, the current study's procedure may not be well designed for recruiting ex-couples and may have biased the representativeness of our sample. It is namely possible that when both ex-partners agreed to participate, these ex-couples were less antagonistic or less likely to have perpetrated unwanted pursuit or stalking behavior than the ex-couples that did not participate. Despite the fact that the size and nature of our sample may limit the generalizability of our results, we had a reasonable statistical power and considered it important to foster the UPB research with some first basic evidence for interindividual effects that needs to be replicated and substantiated in future studies. Future studies should think about better strategies to recruit large and representative samples of ex-couples. Whereas the current study tested only simple APIMs separately for each predictor in view of the relatively small sample, larger samples would allow for more complex models to be tested. Such models could combine actor and partner effects of several relationship characteristics or include relevant control variables such as socio-

demographic characteristics or social desirability scores. They could also account for the role of breakup characteristics such as initiator status or post-breakup negative affect that have been found to explain the perpetration of UPBs by former partners in an important way and to mediate or moderate the influence of relationship characteristics on UPB perpetration (e.g., Davis et al., 2000; De Smet et al., 2012; Dye & Davis, 2003; Wisternoff, 2008).

Another weakness concerns the study's cross-sectional design and retrospective measuring of the variables. Past relationship characteristics may have been retrospectively reinterpreted (especially when one was the target or the actor of post-separation UPBs), thereby disrupting the supposed direction of our findings. More concretely, partners of post-breakup pursuers may have shown a memory bias towards the times they had conflict with their ex-partner, whereas the actors may have remembered instead the positive aspects of the lost relationship they were pursuing (cf., Langhinrichsen-Rohling et al., 2000). Moreover, given the cross-sectional nature of our study, the identified effects should merely be interpreted as associations. In this respect, longitudinal studies are needed that begin by registering relationship characteristics while the relationship is still intact and will allow to gain further insight in the causal direction of our findings.

Next to potential recall biases in the perceptions of past relationship characteristics, also the UPB self-reports were likely biased. Studies with individual ex-partners namely found that persons in the role of perpetrator report less UPBs than persons in the role of victim (e.g., Dutton & Winstead, 2006; Sinclair & Frieze, 2005). The underreporting of UPBs in perpetrators might result from biased perceptions such as a reduced sensitivity for the unwanted nature of their pursuit (e.g., Cupach & Spitzberg, 2004) or from a tendency to present oneself in a socially desirable manner (De Smet, Buysse, & Brondeel, 2011). As past studies only included individual ex-partners who reported on different breakups, future dyadic studies should collect persons' reports on both their own and their ex-partners' perpetrated UPBs. This was not the case in this study as an artifact of the extensive IPOS questionnaire. Such studies could namely test

the extent to which perpetrators' reports are biased relative to their ex-partners' victimization reports. To date no study yet addressed the correspondence in UPB victimization and perpetration reports of members of the same ex-couple.

Finally, consistent with previous studies (e.g., Davis et al., 2000), the ex-partners in our sample engaged in only a limited number of UPBs that were chiefly benign in nature. Only in a smaller portion of ex-partners these mild forms of UPB seem to escalate to more severe forms that can be defined as stalking (cf., Stieger et al., 2008). Assessing whether the APIM effects can also explain more severe forms of stalking would be an interesting avenue for future research. In addition, on the basis of our gender interactions, we believe that future studies should be more observant of gender differences in predicting UPB perpetration. Next to gender differences, which are easily assessed in the APIM, many other research questions are worth exploring using this model (e.g., the influence of targets' coping on the pursuers' UPBs). Even broader, future UPB-studies could explore interindividual processes in the literal sense of the word. That would require methods such as dyadic diary methods that are able to record dynamic interaction patterns between persons over a period of time in everyday situations with a reduced likelihood of retrospection (e.g., Bolger, Davis, & Rafaeli, 2003).

The main conclusion that should be drawn from this pioneering study on partner effects is that intraindividual effects alone cannot fully explain UPB perpetration. Rather, as demonstrated in the Partner x Gender interactions of anxious attachment and satisfaction, the Actor x Partner interactions of anxious attachment and alternatives, and the marginal partner effect of conflict, interindividual effects also play an explanatory role. It is important to remind that our study did not report on a forensic sample and did not register the severe stalking cases seen in court. There are delinquent perpetrators, yet our data suggest that at least in more mild UPB cases there are bidirectional influences. Therefore, we believe we found evidence for a systemic approach to UPB. This approach accounts for the complex interplays between partners in its assessment and treatment and might avoid possible pitfalls of purely individualized clinical practices. More in concrete, we argue that systemic therapists should not only assess risk factors of

UPB perpetration on the actor level, but—at least in some cases—also on the partner level and the couple level. Our interindividual effects might also inspire interventions in working with victims or perpetrators. For instance, with victims one can work on an awareness of which personal- or couple-related risk factors might negatively impact on the perpetrator's behavior and so give targets a sense of control over the pursuit. With perpetrators, one can focus on partner- and couple-related risk factors next to solely attend to personal risk factors what might elicit therapy resistance. Typical for systemic therapy herein, is its fundamental attitude of plural partisanship and pragmatically addressing of interindividual patterns rather than analyzing causes or attributing blame. Beyond the specific context of system therapy, our findings might have broader implications for divorce professionals, such as mediators, judges, divorce counselors, or attorneys who assist divorcing partners to settle their divorce. An awareness among these professionals for the risk factors that contribute to elevated levels of UPB could aid in managing post-breakup unwanted pursuit, for instance, by helping ex-partners to find their passage to formal (system) therapy if recommended.

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CHAPTER 5

OCCURRENCE AND RISK FACTORS OF UNWANTED PURSUIT BEHAVIOR BY DIFFERENT GROUPS OF EX-PARTNERS[1]

Abstract

This study investigated unwanted pursuit behavior (UPB) perpetration in 631 adult ex-partners. The occurrence of UPBs and the relative importance of different types of risk factors were examined, accounting for differences between male and female, same- and opposite-gender, and clinical and non-clinical ex-partners. Male and female and same- and opposite-gender ex-partners perpetrated an equal number of UPBs whereas clinical ex-partners represented a more severe group of pursuers than non-clinical ex-partners. The number of tactics utilized was explained by breakup characteristics (i.e., ex-partner initiation of the breakup and rumination about the ex-partner), relationship characteristics (i.e., anxious attachment in the former relationship), as well as individual perpetrator characteristics (i.e., borderline traits and past delinquent behaviors). Rumination was a stronger predictor of UPB perpetration in female than male ex-partners. Borderline traits and anxious attachment positively predicted UPB perpetration in opposite-gender but not in same-gender ex-partners. Risk factors for clinical and non-clinical ex-partners were identical.

[1]Based on De Smet, O., Uzieblo, K., Loeys, T., Buysse, A., & Onraedt, T. (2013). *Occurrence and risk factors of unwanted pursuit behavior by different groups of ex-partners.* Manuscript submitted for publication.

INTRODUCTION

In the last two decades, many jurisdictions around the world have criminalized stalking as a felony in diverse legal statutes (Meloy & Felthous, 2011). These various legal definitions typically identify stalking as "an intentional pattern of repeated behaviors toward a person or persons that are unwanted and result in fear or that a reasonable person (or jury) would view as fearful or threatening" (Spitzberg & Cupach, 2007, p. 66). Although the media has portrayed a stereotype of stalking as a celebrity followed by a mad stranger, researchers agree that not stranger stalking but relational stalking is the most prototypical form of stalking (Spitzberg & Cupach, 2003). Indeed, meta-analyses show that in around 80% of all cases victims and perpetrators have some form of prior relationship and that half of all stalking results specifically from past romantic relationships (Cupach & Spitzberg, 2004; Spitzberg & Cupach, 2007; Spitzberg, Cupach, & Ciceraro, 2010). With regard to this, intimacy motives have been found to be present in about one third of all cases (Spitzberg & Cupach, 2007).

The concepts *obsessive relational intrusion* (e.g., Cupach & Spitzberg, 1998, 2004) and *unwanted pursuit behavior* (UPB; Langhinrichsen-Rohling, Palarea, Cohen, & Rohling, 2000) specifically describe the unwanted pursuit of intimacy through repeated privacy-violating intrusions. There are two differences in the definitions of stalking and UPB. First, stalking—in contrast to UPB—does not necessarily need to result from intimacy motives. Second, UPB—in contrast to stalking—does not need to cause fear or threat in the victim. As UPB involves the full range of mild to severe unwanted pursuit tactics, it is more widespread than stalking and mostly aggravating or annoying but not fear-inducing (e.g., Cupach & Spitzberg, 1998, 2004). For instance, lifetime prevalence estimates of ex-partner stalking victimization in nationally representative studies amount to 3-4% (Dressing, Gass, & Keuhner, 2007; Purcell, Pathé, & Mullen, 2002; Stieger, Burger, & Schild, 2008) whereas in a recent representative study of adult ex-partners, 37% were found to have used at least one pursuit tactic after their breakup (De Smet, Loeys, & Buysse, 2012a). In the latter study, most of the registered tactics were benign tactics

(i.e., watching the ex-partner, monitoring the ex-partner, and making exaggerated expressions of affection). Nevertheless, such relatively innocuous behaviors are more likely to evolve into violent, persistent, and recurrent stalking episodes among ex-partners (for a review, see McEwan, Mullen, & Purcell, 2007).

In this study, we investigated the widespread and broad array of intimacy-driven UPB acts in former partners, as they represent the most important subgroup of stalkers and pursuers. The present study had two major aims. First, alongside registering the occurrence of UPB in adult ex-partners, we aimed to extend the research on risk factors for UPB perpetration by assessing the relative importance of several breakup, relationship, as well as individual perpetrator characteristics identified in previous studies. Therefore, an integrated examination of these different types of risk factors was performed. Second, we aimed to examine for potential differences between male and female ex-partners, same- and opposite-gender ex-partners, and ex-partners undergoing post-breakup psychological treatment or not in our assessment of the occurrence and risk factors of UPB. As we will reason below, the moderating effects of the perpetrators' gender, the gender of their ex-partner, and their clinical status after breakup have not yet been properly addressed in the particular context of post-breakup UPB. Yet, we believe it is relevant to know if findings made about UPB can be generalized to these different groups of ex-partners.

Occurrence of Unwanted Pursuit Behavior

Gender. Studies show an unequal male-female ratio when it comes to stalking. In about three-quarters of all cases women are the victims and men the perpetrators of stalking. This is especially the case in studies that included feelings of fear or threat in the victim as part of their definition of stalking, as well as in clinical/forensic samples, or when people self-identified as a stalking victim (Cupach & Spitzberg, 2004; Spitzberg & Cupach, 2007; Spitzberg et al., 2010). In contrast, research in college student samples (e.g., Dutton & Winstead, 2006; Langhinrichsen-Rohling et al., 2000; Wisternoff, 2008) or

community samples (De Smet et al., 2012a) of ex-partners that assessed the full range of UPBs without evaluations of fear, revealed that men and women perpetrate or experience a similar number of UPBs after breaking up. Only some gender differences have been found with respect to the types of behaviors perpetrated after a breakup. For instance, compared to women, men have been found to more often engage in approach behaviors such as unwanted asking the ex-partner out on dates (Wisternoff, 2008) and to less often monitor or physically hurt their ex-partner (Dutton & Winstead, 2006). The gender differences in stalking estimates are assumed to partly reflect gender-specific perceptions. Namely, women more likely perceive themselves as victims of unwanted pursuit and perceive the pursuit as threatening—especially when the pursuer is a man—and men more likely admit that they engaged in activities that could be viewed as stalking (Spitzberg et al., 2010). Similarly, male pursuers have been found to report more fear in their female targets as a reaction to their pursuit activities than female pursuers (Sinclair & Frieze, 2000). With respect to pursuit duration, most studies have found no or, at most, statistically small gender effects (e.g., Sinclair & Frieze, 2005; Spitzberg et al., 2010). Based on these findings, we expected that male and female ex-partners would perpetrate a similar number of UPBs (hypothesis 1a), would differ in the use of certain types of tactics (hypothesis 1b), would perpetrate UPBs for equally long periods of time (hypothesis 1c), and would differ in their perceptions of the impact of their UPBs with men reporting more negative reactions to their pursuit than women (hypothesis 1d).

Gender of the ex-partner. Stalking and UPB most typically occur in cross-gender contexts (e.g., Purcell et al., 2002; Spitzberg et al., 2010). Despite this, Purcell et al.'s (2002) large-scale representative study found a 24% prevalence rate of same-gender stalking and some cases of this sort have been found to develop from a previous intimate relationship (14% in Pathé, Mullen, & Purcell, 2000; 32% in Strand & McEwan, 2011). Irrespective of the specific type of victim-perpetrator relationship, differences in the characteristics of same- and opposite-gender stalking and pursuit cases have been observed. Studies have found that same-gender dyads experience higher levels of UPB

than opposite-gender dyads (Spitzberg et al., 2010) and that same-gender stalkers were more likely to send text messages, to engage in loitering and following, to enter the victim's home, to damage property, and to make more threats (Strand & McEwan, 2011). In another study, same-gender stalkers were found to be less likely to engage in following and approaching behavior but equally likely to threaten the victim and to engage in property damage and violence (Pathé et al., 2000). The duration of stalking was found to be similar in same- and opposite-gender stalking cases (Pathé et al., 2000; Strand & McEwan, 2011). Although the differences identified in these studies have not been examined in the context of post-breakup UPB, we expected that, compared to participants who separated from an opposite-gender partner, participants who separated from a same-gender partner would perpetrate more UPBs in general (hypothesis 2a) and would differ in certain types of behavior (hypothesis 2b). We presumed that both groups would engage in pursuit behaviors for equally long periods of time (hypothesis 2c) and we explored if same- and opposite-gender ex-partners differ in the reported impact of their behaviors.

Clinical status. UPB and stalking studies have been conducted in a variety of samples, which can be categorized as clinical/forensic, general population, and college student samples. In their meta-analytic studies, Spitzberg and Cupach (e.g., Spitzberg & Cupach, 2007; Spitzberg et al., 2010) compared the nature and prevalence of stalking across these sample types and found that—in comparison to general or college samples—clinical/forensic samples show inflated prevalence estimates of stalking victimization (Spitzberg & Cupach, 2007), an intermediate stalking duration as well as significantly higher percentages of stalking-related threats and violence (Spitzberg et al., 2010). Unfortunately, studies including clinical/forensic samples contain the most serious stalking cases and do not explicitly focus on former partners. Hence, no data are available about whether the post-breakup clinical status of an ex-partner also moderates the occurrence of broader forms of UPB after separation. Nevertheless, based on the available research, we hypothesized that ex-partners in post-breakup treatment would

perpetrate more UPBs (hypothesis 3a), would show more severe pursuit tactics (hypothesis 3b), would engage in UPBs for a longer period of time (hypothesis 3c), and, consequently, would perceive more negative reactions to their intrusions by their targets (hypothesis 3d).

Risk Factors of Unwanted Pursuit Behavior

Scholars have examined a wide variety of risk factors for post-breakup stalking and UPB that can be clustered into breakup characteristics, pre-breakup romantic relationship characteristics, and individual characteristics of the perpetrator.

As stalking and UPB mainly occur in the context of a failed intimate relationship, factors related to the breakup have received interest in recent attempts to explain occurrences of post-breakup pursuit. These studies found that the probability of someone resorting to UPB or the number of perpetrated tactics is higher among persons whose ex-partner most wanted the relationship to end than among persons who most wanted the breakup themselves or persons who wanted the breakup as much as their ex-partner (Davis, Ace, & Andra, 2000; Dye & Davis, 2003; De Smet, Buysse, & Brondeel, 2011; De Smet et al., 2012a; Wisternoff, 2008). Also, higher levels of cognitive preoccupation with the ex-partner or past relationship have been found to be particularly predictive of more frequent UPB perpetration (Cupach, Spitzberg, Bolingbroke, & Tellitocci, 2011; Davis et al., 2000; Dutton-Greene, 2004).

In line with categorical or dimensional conceptualizations of attachment in adult romantic relationships (Bartholomew & Horowitz, 1991; Brennan, Clark, & Shaver, 1998), numerous studies have found that more anxiously (preoccupied or fearfully) attached partners perpetrate more stalking or UPBs after a breakup (Davis et al., 2000; Dutton & Winstead 2006; Dye & Davis, 2003; Kamphuis, Emmelkamp, & de Vries, 2004; Langhinrichsen-Rohling et al. 2000; Wigman, Graham-Kevan, & Archer, 2008; Wisternoff, 2008). The association between avoidant attachment and UPB perpetration has found to be insignificant (e.g., Dutton & Winstead, 2006). Research has not yet fully tackled the

issue of empathic abilities of stalkers and UPB perpetrators. Empathy refers to the ability to attribute mental states to another person and to generate an appropriate affective response to the mental state of the other (Baron-Cohen & Wheelwright, 2004). Empathy is believed to foster prosocial behavior and inhibit antisocial behavior (Eisenberg, 2000; Jolliffe & Farrington, 2004). Despite this, apart from indirect evidence that unwanted pursuers and stalkers are less socially competent (Spitzberg & Veksler, 2007), a direct link between empathy and stalking or UPB perpetration has still not been uncovered (Asada, Lee, Levine, & Ferrara, 2004; Lewis, Fremouw, Del Ben, & Farr, 2001). Specific measures of empathy have been found to be more sensitive than global measures of empathy (e.g., McGrath, Cann, & Konopasky, 1998) and at present researchers favor the view that attachment is a relationship-specific instead of an individual trait variable (Mikulincer & Shaver, 2007). Therefore, we assessed attachment style and empathy in a relationship-specific manner (i.e., with reference to the pre-breakup relationship with the ex-partner) and considered them as relationship characteristics.

Individual perpetrator characteristics have been predominantly examined in clinical/forensic samples of stalkers but also some non-clinical/forensic studies found that ex-intimate stalkers likely have a history of criminal convictions and mental health problems (Roberts, 2002). Cluster B personality disorders or traits, especially borderline traits, have been found to distinguish stalkers and pursuers from control groups (Lewis et al., 2001; Spitzberg & Veksler, 2007). Earlier work has shown that narcissistic traits enhance the acceptability of UPB perpetrations (Asada et al., 2004) and that some ex-intimate stalkers fit descriptions of a criminal/antisocial stalker (Kamphuis et al., 2004). However, in the study of Spitzberg and Veksler (2007), levels of narcissistic and antisocial personality characteristics were not found to discriminate pursuers and stalkers from non-pursuers.

Integrative theoretical frameworks, such as the integrative contextual developmental model developed by White, Kowalski, Lyndon, and Valentine (2000), suggest that stalking and UPB are phenomena determined by multiple factors. In line with White et al.'s model, which identifies risk factors at different levels (such as the

situational, dyadic, and intrapersonal level), we examined the relative importance of the breakup, relationship, and individual perpetrator characteristics outlined above to explain perpetrations of post-breakup UPB. In accordance with previous studies, we hypothesized that the number of UPBs perpetrated by ex-partners would be positively related to being the recipient of the breakup (hypothesis 4a), the degree of post-breakup rumination (hypothesis 4b), the level of anxious attachment in the past relationship (hypothesis 4c), the number of earlier perpetrated delinquent behaviors (hypothesis 4d), and the level of borderline personality traits (hypothesis 4e). Controlling for these robust effects, we did not expect effects of the degree of avoidant attachment (hypothesis 4f) and empathy in the broken relationship (hypothesis 4g) and of narcissistic (hypothesis 4h) and psychopathic (hypothesis 4i) personality traits in our model.

Differential effects of gender. To date, there has been very little discussion on the differential predictability of male and female stalking and UPB perpetration. The available studies that have addressed gender differences tend to report few differences with respect to the variables discussed in this study. For example, female stalkers are less likely to have a history of criminal offenses than male stalkers, but male and female stalkers are equally likely to have personality disorders (Purcell, Pathé, & Mullen, 2001). Moreover, the positive associations between stalking perpetration and borderline traits (Lewis et al., 2001), obsessive thoughts about the ex-partner (Davis et al., 2000), anxious attachment (Davis et al., 2000; Dye & Davis, 2003; Lewis et al., 2001), and being the recipient of the breakup (Dye & Davis, 2003) are similar for men and women. However, Spitzberg (2000) found some differences in regression models for male and female UPB perpetration including a positive effect of preoccupied attachment on UPB perpetration in women that was not observed in men. To extend the research on gender differences, we tested whether the participants' gender influences the effects of our risk factors on post-breakup UPB perpetration. Based on the scarce evidence for the moderating role of gender, we assumed that the risk factors of male and female UPB perpetration after breakup would be largely identical (hypothesis 5).

Differential effects of ex-partner's gender. Only a limited number of studies have compared same- and opposite-gender stalkers while focusing on some of the risk factors in this paper. These studies have shown that, relative to opposite-gender stalkers, same-gender stalkers are no more likely to have a prior history of criminal offending including violent offences (Pathé et al., 2000) and also do not differ in their psychopathological status, such as in the presence of personality disorders (Pathé et al., 2000; Strand & McEwan, 2011). As is the case for opposite-gender stalkers, same-gender stalkers often have a primary diagnosis of a personality disorder, most frequently borderline disorder and less frequently narcissistic or antisocial disorder (Pathé et al., 2000). Unfortunately, these studies do not account for the moderating role of separating from a same- or opponent-gender partner in the risk factors of post-breakup UPB perpetration. As these studies suggest that the psychological profile of both groups is similar, we expected to find no significant moderating effects of gender of the other ex-partner (hypothesis 6).

Differential effects of clinical status. Studies examining clinical/forensic stalking cases have shown that stalkers are characterized by a criminal history as well as a psychiatric history that often includes presence of a cluster B personality disorder (e.g., Meloy, 1996; Morrison, 2008) with borderline disorders or traits being more frequently observed in stalkers than narcissistic (Rosenfeld & Harmon, 2002) and psychopathic disorders or traits (Meloy, 1996; Reavis, Allen, & Meloy, 2008; Rosenfeld & Harmon, 2002; Storey, Hart, Meloy, & Reavis, 2009). The large majority of ex-partner stalkers in these samples also exhibited an intense preoccupation with and fixation on their victim (Morrison, 2008) as well as an anxious attachment style (MacKenzie, Mullen, Ogloff, McEwan, & James, 2008). The risk factors identified in clinical/forensic samples of stalkers appear to be mainly similar to those found in non-clinical/non-forensic samples presented earlier. Although the results from clinical/forensic groups of stalkers may not generalize to a clinical group of ex-partner pursuers, we cautiously expected to find similar effects of our risk factors for ex-partners in treatment to those not in treatment since their separation (hypothesis 7).

METHOD

Participants and Procedure

Persons older than 18 years who had broken up with a same- or opposite-gender romantic partner within the last two years were invited to participate in the study. To reach a widespread sample, we recruited participants through different media: (a) newspaper, magazine, and internet advertisements, (b) distribution of research flyers and posters in public places, and (c) snowball-sampling via social networks and e-mail contacts of the researchers. Additional efforts were made to recruit same-gender ex-partners by advertising in specific magazines and on websites of lesbian, gay, bisexual, and transgender (LGBT) associations and spreading research flyers and posters in LGBT meeting places. To ensure reaching a substantial clinical group of ex-partners, we also distributed flyers and posters in the waiting rooms of several mental health services where ex-partners might be likely to look for help and support. All recruitment channels promoted our website, where participants could fill out a series of questionnaires. This resulted in a convenience sample of 906 participants of whom 631 (70%) fully completed the online assessment in a valid way. The drop-out participants did not differ from the 631 participants on the criterion variable of this study (non-parametric Mann-Whitney *U* test for UPB perpetration = 67.12, $p = .473$).

The 631 participants (64% women; 98% of Belgian nationality) were on average 30.57 years old ($SD = 10.75$, range: 18–61). One hundred and seventy-eight (28%) ex-partners had separated from a same-gender partner (16% men and 12% women). More than a fifth of the ex-partners in our sample (23%) indicated that they received post-breakup psychological guidance or treatment related to their separation. Most participants were highly educated (72% with a Bachelor's degree or above) and not currently involved in a romantic relationship (74%). A smaller proportion (19%) had children with the ex-partner. The broken relationships had lasted an average of 5.75

years (*SD* = 7.21; range: 0–38) and ended on average one year ago (*M* = 12.19 months, *SD* = 7.90, range: 0–24).

The password-protected online assessment started with a description of the study's goal, inclusion criteria, procedure, and reward for participation (i.e., a voucher of 20€ for every 20th participant). After the participants agreed with the informed consent and typed in their email address (to which a unique code was automatically sent), they started filling out the questionnaires. Participation in the study was on a voluntary basis. Anonymity was assured as email addresses and questionnaire data were saved separately. The study was approved by the ethical committee of Ghent University and the Belgian Privacy Commission.

Measures

Unwanted pursuit behavior perpetration. UPB perpetration was assessed with an adapted Dutch version of the Relational Pursuit-Pursuer Short Form (RP-PSF, Cupach & Spitzberg, 2004; Dutch version, De Smet et al., 2012a). This 28-item questionnaire measured how often, if at all, the participants had persistently pursued their ex-partner since the breakup, for the purpose of establishing some form of intimate relationship that their ex-partner did not want by, for example, "Leaving unwanted gifts (e.g., flowers, stuffed animals, photographs, jewelry, etc.)" or "Following him or her around (e.g., following the ex-partner to or from work, school, home, gym, daily activities, etc.)." A short introductory text described relationship pursuit as a relatively normal phenomenon and encouraged participants to answer honestly and to consider events over the full time period since the breakup. The frequency with which the participants conducted each behavior was rated on a 5-point Likert scale (from 0 = *never* to 4 = *over 5 times*). The scale is considered to show content and face validity as the items refer to a wide range of UPBs and were developed through thorough meta-analytic work (cf., Cupach & Spitzberg, 2004). The overall index of perpetration was calculated by summing up all items. We refer to the sum score as the number of UPBs. The 28-item RP-PSF was

internally consistent in this study (α = .82) as well as in previous ones (e.g., De Smet et al., 2012a).

To obtain information on the manifestation and perception of UPB perpetration by the respondents, some additional questions were asked: "If you conducted one or more of the aforementioned behaviors, how annoying was this for your ex-partner?" (0 = *not at all* to 8 = *very much*); "..., how much fear did your ex-partner feel?" (0 = *not at all* to 8 = *very much*); "…, to what extent did your ex-partner feel threatened?" (0 = *not at all* to 8 = *very much*); and "…, for how long did you exhibit these behaviors?" (number of weeks).

Initiator status. To identify the initiator of the breakup, the question "Who wanted the breakup the most?" (1 = *I*, 2 = *ex-partner*, and 3 = *both equally*) was asked.

Post-breakup rumination. To measure the extent of preoccupation with the ex-partner, a forward and backward translated Dutch version of the 9-item Relationship Preoccupation Scale (RPS; Davis, Shaver, & Vernon, 2003) was administered. Items, such as "I think about my ex-partner constantly" and "Everything seems to remind me of my ex-partner", were rated on a 7-point Likert scale (from 1 = *strongly disagree* to 7 = *strongly agree*). Previous research has demonstrated a good internal consistency of the RPS (Davis et al., 2003; Saffrey & Ehrenberg, 2007), concordant with the current high alpha value of .94.

Adult attachment style. An adapted version of the Dutch Experiences in Close Relationships Scale (ECR, Brennan et al., 1998; Dutch ECR, Conradi, Gerlsma, van Duijn, & de Jonghe, 2006) was used to assess the participants' levels of anxious and avoidant attachment in the relationship with their ex-partner before the breakup. Participants were explicitly instructed to think of their ex-partner and to recall how they had generally felt in the relationship before it ended. Eighteen items probed the degree of anxious attachment (i.e., fear of abandonment and strong desires for interpersonal

merger; e.g., "I worried that my ex-partner didn't care about me as much as I cared about him/her") and 18 items tested the degree of avoidant attachment (i.e., discomfort with closeness, dependence, and intimate self-disclosure; e.g., "I was nervous when my ex-partner got too close to me"). All 36 items were answered on a 7-point scale (ranging from 1 = *strongly disagree* to 7 = *strongly agree*). Previous research has supported the reliability and validity of the ECR (Ravitz, Maunder, Hunter, Sthankiya, & Lancee, 2010). In the current sample, Chronbach's alphas were high for both the anxious (α = .88) and avoidant (α = .89) attachment dimensions.

Empathy. An adapted version of the Dutch Empathy Quotient (EQ, Baron-Cohen & Wheelwright, 2004; Dutch EQ, De Corte, Uzieblo, Buysse, & Crombez, 2006) was used to assess the participants' empathic abilities in the relationship with their ex-partner. Forty items assessed several empathy components including cognitive empathy (e.g., "I could tell if my ex-partner was masking his/her true emotions"), emotional reactivity (e.g., "I tended to get emotionally involved with my ex-partner's problems"), and general social skills (e.g., "I find it hard to know what to do in a social situation"). Items were rated on a 4-point scale (from 1 = *strongly agree* to 4 = *strongly disagree*) and subsequently recoded into 1 or 2 points if the participant reported the empathic behavior slightly or strongly, respectively. Previous studies have demonstrated good reliability and validity of the EQ (e.g., Lawrence, Shaw, Baker, Baron-Cohen, & David, 2004). Based on Rasch analyses, the EQ has recently been found to be a one-dimensional measure of empathy (Allison, Baron-Cohen, Wheelwright, Stone, & Muncer, 2011). Hence, empathy can be indexed by summing up the 40 recoded items, which proved to be internally consistent in the present sample (α = .86).

Psychopathic traits. Psychopathic traits were assessed with the Hare Self-Report Psychopathy Scale-III (SRP-III, Paulhus, Neumann, & Hare, in press; Dutch SRP-III, Uzieblo, De Ruiter, Crombez, Paulhus, & Hare, 2007) using 64 items scored on a 5-point scale (from 1 = *strongly disagree* to 5 = *strongly agree*). Analogous to the Psychopathy

Checklist-Revised (Hare, 2003), the SRP-III assesses the four core features of psychopathy: interpersonal manipulative behavior (e.g., "I purposely flatter people to get them on my side"), callous affect (e.g., "People sometimes say that I'm cold-hearted"), erratic lifestyle (e.g., "I've often done something dangerous just for the thrill of it"), and criminal tendencies (e.g., "I have threatened people into giving me money, clothes, or makeup"). The SRP-III exhibits good reliability and validity in non-forensic and non-clinical student and community samples (Caes et al., 2012; Mahmut, Menictas, Stevenson, & Homewood, 2011). In this study, the SRP-III also showed a good internal reliability (α = .89).

Borderline traits. To assess borderline traits, we used the McLean Screening Instrument for Borderline Personality Disorder (MSI-BPD, Zanarini et al., 2003; Dutch MSI-BPD, Verschuere, & Tibboel, 2011), which consists of 10 items (e.g., "Have you been extremely moody?", "Have you chronically felt empty?"; 0 = *no* and 1 = *yes*). The degree of borderline traits is indexed by summing up the scores on all items. A score of seven or above indicates the presence of a borderline personality disorder (Patel, Sharp, & Fonagy, 2011; Zanarini et al., 2003). There is support for the reliability and the factorial, convergent, and criterion validity of the scale in non-clinical community and student samples (Patel et al., 2011; Verschuere & Tibboel, 2011). Chronbach's alpha in this study was adequate (α = .77).

Narcissistic traits. The Dutch Narcissism Scale (NNS; Ettema & Zondag, 2002) was used to measure the degree of non-pathological narcissism. The development of the NNS was based on the Narcissistic Personality Inventory (Raskin & Hall, 1979, 1981) and the Hypersensitive Narcissim Scale (Hendin & Cheek, 1997). All 35 items (e.g., "I can easily get others to do what I feel is necessary'' and "When I enter a room I am often painfully aware of the way others look at me") were scored on a 7-point scale (from 1 = *certainly not the case* to 7 = *certainly the case*). The validity and reliability of the NNS are

supported (Ettema & Zondag, 2002; Zondag, 2005). In our sample, we observed a good internal reliability (α = .81).

Delinquent behavior. The widely-adopted International Self-Report Delinquency Survey (ISRD; Junger-Tas, Terlouw, & Klein, 1994) was used to measure past delinquent behavior. Respondents were asked to indicate how many times they ever displayed 44 different delinquent behaviors on a 5-point Likert scale (from 0 = *never* to 4 = *more than 10 times*). The items tapped five categories of offenses: problem behavior (e.g., "Stay away from school"), vandalism (e.g., "Vandalize property belonging to someone else"), theft behavior (e.g., "Steal from work"), violent and aggressive behavior (e.g., "Engage in fighting"), and alcohol and drug use (e.g., "Use heroin, cocaine, crack, PCP, LSD"). The overall index of delinquent behavior, obtained by summing up the items, proved to be internally consistent (α = .81). Zhang, Benson, and Deng (2002) found support for the test-retest reliability and stated that the ISRD can be reliably used to gather self-reported information on criminal acts.

Social desirability. Because of the focus on perpetrator reports, we included a measure to control for self-presentation issues. The 22-item Dutch version of the Eysenck Personality Questionnaire-Lie scale (EPQ-Lie scale, Eysenck & Eysenck, 1975; Dutch EPQ-Lie scale, Sanderman, Arrindell, Ranchor, Eysenck, & Eysenck, 1995) was used to assess socially desirable responding. Items were answered on a dichotomous scale (e.g., "Do you sometimes talk about things you know nothing about?" and "Are all your habits good and desirable ones?"; 0 = *no* and 1 = *yes*). The EPQ-Lie scale exhibits an acceptable degree of internal consistency, good test-retest reliability, and validity (Ferrando, Chico, & Lorenzo, 1997; Sanderman et al., 1995). Chronbach's alpha for the present sample was .82.

RESULTS

Occurrence of Unwanted Pursuit Behavior

Descriptive statistics were calculated using IBM SPSS Statistics 19. Table 1 displays the ranges, means, standard deviations, and bivariate correlations of the independent variables for the total sample. The histogram displayed in Figure 1 graphs the skewed distribution of the dependent variable. About one third of the sample (32%, *n* = 200) reported no UPB perpetration since the separation. A large proportion (63%, *n* = 395) displayed between 1 and 20 behaviors. The maximum number of observed UPBs was 49, but only a small proportion of participants (6%, *n* = 36) reported more than 20 behaviors (grouped together in the histogram in a single category). On average five to six behaviors were registered. The three most reported behaviors included making exaggerated expressions of affection, monitoring the ex-partner and/or his/her behavior, and leaving unwanted messages of affection. More extreme behaviors were less frequently reported and the least reported behaviors included showing up at places in threatening ways, leaving or sending the ex-partner threatening objects, kidnapping or physically constraining the ex-partner, and physically endangering the ex-partner's life (≤ 1%, see Table 2). Descriptive results of the additional UPB-questions showed that persons who conducted UPBs tended to perceive their behaviors as only slightly annoying for their ex-partner and nearly not frightening or threatening, respectively *M*(*SD*) = 2.19(2.27), *M*(*SD*) = 0.82(1.68), and *M*(*SD*) = 0.69(1.50) on a scale from 0 to 8. The behaviors were displayed for an average of 10 weeks; *M*(*SD*) = 9.88(18.14), range: 0–112.

Table I

Descriptive Statistics and Pearson Correlations of the Independent Variables

Variable	*M* (*SD*)	Range	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
1. Rumination	26.47(12.98)	9–63	.28***	-.19***	-.01	.04	.23***	.13**	.00	.01
2. Anxious attachment	72.10(19.16)	18–126	-	.06	-.10*	.07	.43***	.35***	.06	-.15***
3. Avoidant attachment	50.83(17.45)	18–126		-	-.38***	.15***	.15***	.12**	.09*	-.05
4. Empathy	41.66(11.05)	0–80			-	-.37***	-.17***	-.16***	-.18***	.23***
5. Psychopathic traits	132.78(23.83)	64–320				-	.36***	.44***	.54***	-.49***
6. Borderline traits	4.58(2.78)	0–10					-	.37***	.25***	-.30***
7. Narcissistic traits	153.19(19.31)	35–245						-	.22***	-.31***
8. Delinquent behavior[a]	11.72(8.83)	0–176							-	-.51***
9. Social desirability	8.08(4.46)	0–22								-
10. Initiator	I = 39.0%, ex-partner = 49.1%, both = 11.9%									

Note. *N* = 631.

[a]Non-parametric Spearman rank correlation coefficients are presented for the skew distributed delinquent behavior scale.

*$p < .05$. **$p < .01$. ***$p < .001$.

Table II

Descriptive Statistics and Frequencies of Perpetrated UPBs Since the Breakup

UPB	*M* (*SD*)	%
Leaving unwanted gifts	0.17(0.62)	9.5
Leaving unwanted messages of affection	0.69(1.25)	28.5
Making exaggerated expressions of affection	0.85(1.34)	35.2
Following your ex-partner around	0.10(0.53)	4.6
Watching your ex-partner	0.57(1.11)	26.0
Intruding uninvited into your ex-partner's interactions	0.19(0.66)	10.1
Invading your ex-partner's personal space	0.40(0.94)	19.5
Involving your ex-partner in activities in unwanted ways	0.06(0.36)	3.5
Invading your ex-partner's personal property	0.09(0.43)	5.7
Intruding upon friends, family or coworkers of your ex-partner	0.23(0.60)	16.0
Monitoring your ex-partner and/or his/her behavior	0.80(1.26)	35.3
Approaching or surprising your ex-partner in public places	0.09(0.42)	6.3
Covertly obtaining private information of your ex-partner	0.50(1.10)	21.6
Invading your ex-partner's property	0.05(0.32)	3.3
Leaving unwanted threatening messages	0.18(0.67)	8.9
Physically restraining your ex-partner	0.09(0.42)	5.9
Engaging in regulatory harassment	0.04(0.32)	2.5
Stealing or damaging valued possessions of your ex-partner	0.04(0.23)	3.2
Threatening to hurt yourself	0.23(0.69)	13.0
Threatening others your ex-partner cares about	0.04(0.32)	2.1
Verbally threatening your ex-partner personally	0.12(0.48)	7.1
Leaving or sending your ex-partner threatening objects	0.01(0.11)	0.6
Showing up at places in threatening ways	0.01(0.13)	1.1
Sexually coercing your ex-partner	0.02(0.18)	1.7
Physically threatening your ex-partner	0.06(0.33)	3.6
Physically hurting your ex-partner	0.06(0.31)	4.8
Kidnapping or physically constraining your ex-partner	0.00(0.00)	0.0
Physically endangering your ex-partner's life	0.00(0.00)	0.0

Gender, gender of the ex-partner, and clinical status. To test the first series of hypotheses, we compared male and female, same- and opposite-gender, and clinical and non-clinical ex-partners on the total number of perpetrated UPBs, the individual UPB-items, and the additional UPB-questions referring to the duration and impact of the pursuit. Mann-Whitney *U* tests revealed—similar to the regression model below—that male and female ex-partners perpetrated a similar number of UPBs, as did same- and opposite-gender ex-partners (id. to hypothesis 1a, vs. hypothesis 2a). In contrast to this, clinical ex-partners reported more UPB perpetrations compared to non-clinical ex-partners (U = 29.18, p = .002, id. to hypothesis 3a). As expected in hypotheses 1b, 2b, and 3b, we found differences for each of the groups with respect to some specific UPB items. First, men more often left unwanted gifts and unwanted messages of affection but less often hurt their ex-partner physically than women (respectively, U = 42.42, p = .004; U = 41.02, p = .008; U = 47.47, p = .026). Second, same-gender ex-partners more often left unwanted messages of affection, intruded upon friends/family/coworkers of their ex-partner, left or sent their ex-partner threatening objects than opposite-gender ex-partners, but less often engaged in regulatory harassment (respectively, U = 43.94, p = .027; U = 44.04, p = .005; U = 40.91, p = .037; U = 39.21, p = .048). Third, the ex-partners in the clinical group left unwanted messages of affection, made exaggerated expressions of affection, engaged in regulatory harassment, threatened to hurt themselves, and physically threatened their ex-partner to a greater extent than their non-clinical counterparts (respectively, U = 30.63, p = .005; U = 30.18, p = .004; U = 32.87, p < .001; U = 29.73, p < .001; U = 33.41, p = .017).

With respect to the additional UPB-questions, we found that men and women engaged in pursuit tactics for a similar number of weeks (id. to hypothesis 1c) and perceived their behaviors as equally annoying, frightening, or threatening to their ex-partner (vs. hypothesis 1d). Similarly, opposite- and same-gender ex-partners did not differ in the duration of their pursuit (id. to hypothesis 2c) or in the perceived impact of their behavior for their targets, except that opposite-gender ex-partners perceived their behaviors as more threatening for their ex-partner than same-gender ex-partners (U =

17.43, p = .011). Finally, except for the threat question, clinical ex-partners reported that their behaviors lasted longer (id. to hypothesis 3c) and were more annoying and frightening (respectively, U = 14.72, p = .024; U = 14.70, p = .020; U = 14.85, p = .009, id. to hypothesis 3d) than the behaviors of non-clinical ex-partners.

Risk Factors of Unwanted Pursuit Behavior

Count regression. We used advanced count regression models that are specifically designed to analyze skewed counts such as the right skewed number of perpetrated UPBs displayed in Figure 1. The basic model for analyzing count data is Poisson regression whereas the negative binomial regression (NB) is appropriate for analyzing overdispersed count data in which the variance of the counts is larger than the mean. As count data may additionally exhibit a lot of zero counts, zero-inflated extensions of both models, called the zero-inflated Poisson and zero-inflated NB regression, have been developed (see Atkins & Gallop, 2007; Karazsia & van Dulmen, 2010). Recently, hurdle Poisson and hurdle NB regressions have been put forward as valuable alternatives to zero-inflated models because they offer a more straightforward interpretation of the results and direct link with the observed data due to a clearer split of the distribution in zero and non-zero counts (for more detailed explanation, see Loeys, Moerkerke, De Smet, & Buysse, 2012). In the zero-hurdle part, the probability of all non-zero counts, relative to all zero counts, is modeled using a binary logistic regression model. In the counts part, the frequency of all non-zero counts in the distribution is modeled using a truncated NB regression. In other words, the zero-hurdle part assesses the effects of predictors for showing UPBs or not whereas the counts part assesses the effects of predictors on the frequency of UPB perpetrations among the perpetrators. In both parts, regression coefficients are exponentiated (e^B) and they are named odds ratios (*OR*s) and rate ratios (*RR*s), respectively. In percentages—100 x (e^B -1)—*OR*s reflect the percentage decrease (*OR* < 1) or increase (*OR* > 1) in the odds of perpetrating UPB, whereas *RR*s reflect the percentage decrease (*RR* < 1) or increase (*RR* > 1) in the

expected frequency of UPBs for each unit increase in the independent variable, controlling for the other predictors in the model.

A first model that explored control variables was used to determine whether a Poisson, NB, hurdle Poisson, or hurdle NB model best fitted our observed number of UPBs. Each of the count models included the number of UPBs as dependent variable and as independent variables the participants' social desirability scores, age, education level, involvement in a new romantic relationship, duration of the past relationship, time since the breakup, presence of children with the ex-partner, clinical status, gender, gender of the ex-partner, and the Gender x Gender Ex-Partner interaction (to control for potential differences in man-man, woman-woman, woman-man, or man-woman relationships). Dummy coding was used for the categorical variables and standardized *z* scores for the continuous predictors in these analyses. R (version 2.9.0) was used to fit the count models. Using graphical inspection and formals tests (outlined in Atkins & Gallop, 2007; Loeys et al., 2012), we found strong evidence that that the hurdle NB model best fitted the dependent's distribution (see Figure 1). The output of the hurdle NB model showed that the odds of perpetrating UPB in the zero-hurdle part and the frequency of expected UPB perpetrations in the counts part were significantly lower for non-clinical ex-partners relative to clinical ex-partners (respectively, *OR* = 0.59 or a 41% decrease, *p* = .028, 95% CI [0.37, 0.95]; *RR* = 0.75 or a 25% decrease, *p* = .028, 95% CI [0.59, 0.97]). In the counts part, we also observed a positive effect of time since the breakup and a negative effect of social desirability. More precisely, the expected number of UPBs increased with 11% (*RR* = 1.11, *p* = .045, 95% CI [1.00, 1.23]) for each *SD* increase in the number of months since the separation and decreased with 15% (*RR* = 0.85, *p* = .003, 95% CI [0.77, 0.95]) for each *SD* increase in the participant's score on the Lie scale.

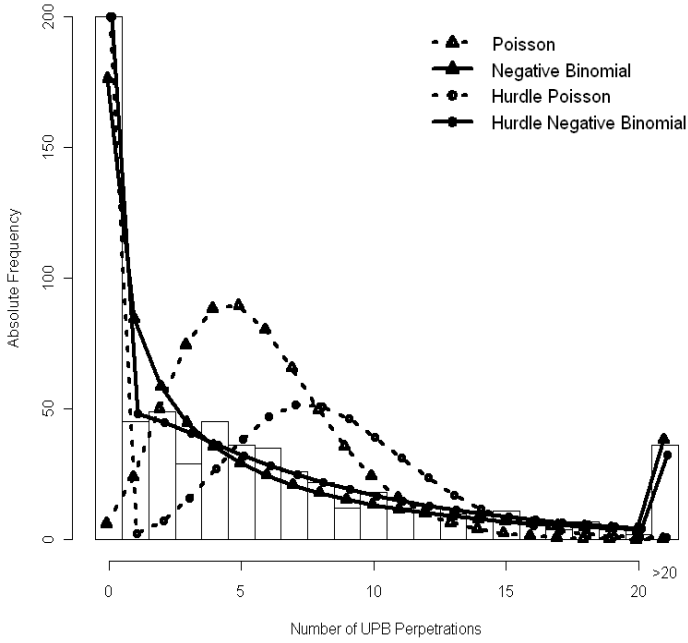

Figure 1. Histogram of observed UPB perpetrations (N = 631, M = 5.70, SD = 7.61, range: 0–49, Skewness = 2.23, Kurtosis = 6.35) with predicted frequencies from different count regression models. The figure depicts that the predicted frequencies from the hurdle NB model best captured the observed number of UPBs. This was confirmed by several formal tests: (a) The likelihood ratio test for comparing nested models showed that the distribution was overdispersed as the NB model was preferred over the ordinary Poisson model, $\chi^2(1, N = 631) = 3137.70$, $p < .001$, and the hurdle NB model over the hurdle Poisson model, $\chi^2(1, N = 631) = 1385.60$, $p < .001$. (b) The Vuong test for comparing non-nested models (Vuong, 1989) illustrated that the data were additionally zero-inflated as the hurdle Poisson model was preferred over the Poisson model (V = 11.40, $p < .001$) and the hurdle NB model over the NB model (V = 3.90, $p < .001$). (c) In line with these results, Akaike's information criterion (AIC) values were smallest for the hurdle NB model: $AIC_{Poisson}$ = 6590.27, AIC_{NB} = 3454.53, $AIC_{hurdle\ Poisson}$ = 4810.83, $AIC_{hurdle\ NB}$ = 3427.22.

Main effects model. Hypotheses 4a to 4i were tested by regressing the effects of initiator status, rumination, anxious and avoidant attachment, empathy, psychopathic, borderline, and narcissistic traits, and past delinquent behavior on the UPB counts in a hurdle NB model (controlling for clinical status, time since the breakup, and social desirability). The results of this model, presented in Table 3, confirm the proposed hypotheses. The odds of showing UPB by our participants after the breakup significantly increased when their ex-partner most wanted the breakup instead of they themselves (247% increase), when they were more preoccupied by their ex-partner (122% increase per *SD* increase in the rumination score), or when they displayed more borderline traits (48% increase per *SD* increase). In contrast, this odds decreased (with 57%) when participants indicated that they had both wanted the breakup equally compared to when their ex-partner most wanted the separation. Similarly, the number of perpetrated UPBs significantly increased in cases where participants reported that their ex-partner instead of they themselves wanted the breakup most (34% increase), or if they ruminated more (34% increase per *SD* increase) or reported more borderline traits (15% increase per *SD* increase). In addition to this, significantly more UPBs were observed when the perpetrators had been more anxiously attached in the past relationship or reported a history involving more delinquent behavior (14% increase per *SD* increase for each). Finally, the effect of clinical status was no longer significant in the main effects model. Post hoc comparisons on the significant risk factors showed that clinical ex-partners reported higher levels of rumination, anxious attachment, and borderline traits than non-clinical ex-partners—respectively, $t(629) = 5.08$, $p < .001$; $t(629) = 4.02$, $p < .001$; $t(629) = 3.43$, $p = .001$—suggesting that the impact of clinical status is mediated by these predictors.

Table III

Main Effects of Breakup, Relationship, and Individual Perpetrator Characteristics on UPB Perpetrations

	Zero-hurdle part		Counts part	
Variable	*OR* (e^B)	95% CI	*RR* (e^B)	95% CI
Initiator[a]				
Ex-partner versus I	3.47***	[2.22, 5.42]	1.34**	[1.10, 1.64]
Both versus I	1.48	[0.80, 2.72]	1.22	[0.91, 1.63]
Both versus ex-partner	0.43**	[0.23, 0.80]	0.91	[0.70, 1.18]
Rumination	2.22***	[1.72, 2.87]	1.34***	[1.22, 1.47]
Anxious attachment	1.23	[0.96, 1.57]	1.14*	[1.03, 1.26]
Avoidant attachment	0.82	[0.65, 1.02]	0.95	[0.86, 1.05]
Empathy	1.17	[0.92, 1.47]	0.96	[0.87, 1.06]
Psychopathic traits	0.92	[0.70, 1.22]	0.95	[0.84, 1.07]
Borderline traits	1.48**	[1.16, 1.89]	1.15*	[1.03, 1.28]
Narcissistic traits	1.20	[0.94, 1.52]	0.99	[0.90, 1.09]
Delinquent behavior	1.21	[0.94, 1.57]	1.14*	[1.02, 1.26]
Clinical status				
Non- versus clinical	1.08	[0.65, 1.80]	0.99	[0.81, 1.21]
Time since breakup[b]			1.23***	[1.13, 1.34]
Social desirability[b]			0.90*	[0.81, 1.00]

Note. N = 631. *OR* = odds ratio. *RR* = rate ratio. CI = confidence interval. Generalized variance inflation factors (for categorical variables with more than two levels; Fox & Monette, 1992) = 1.05–1.48.

[a]Initiator status overall contributed to the zero-hurdle and counts part: respectively, $\chi^2(2, N = 631) = 31.68$, $p < .001$ and $\chi^2(2, n = 431) = 8.30$, $p = .016$. [b]These variables were insignificant in the zero-hurdle part of the control variables model and therefore not included in the zero-hurdle part of the present model.

*$p < .05$. **$p < .01$. ***$p < .001$.

Moderating effects of gender, ex-partner's gender, and clinical status. The moderating effects of gender, gender of the ex-partner, and clinical status in the associations between our predictors and UPB perpetration were assessed. Nine models (one per predictor) assessed the two-way interaction effects with clinical status. Another

nine models assessed the two- and three-way interaction effects of gender and gender of the ex-partner (to check for possible differences in man-man, woman-woman, woman-man, and man-woman relations). As none of the three-way interaction effects were significant, they were removed from the latter models. Next, the non- or least significant two-way interactions including gender or gender of the ex-partner were eliminated (cf., backward regression). Interactions were only assessed in the counts part of the model in Table 3. This halved the number of tested interactions and reduced the risk of false positive effects. Furthermore, predicting the number of perpetrated UPBs is clinically more important than predicting the odds of perpetrating UPB. Although no moderating effects were expected for gender and gender of the ex-partner (hypotheses 5 and 6), three significant two-way interaction terms were found. First, higher rumination scores resulted in a larger increase in the number of perpetrated UPBs in female compared to male ex-partners (see Figure 2A). Second, a higher degree of anxious attachment in the former relationship resulted in less UPB perpetrations by same-gender ex-partners whereas anxious attachment was involved in a positive association with UPB perpetration in opposite-gender ex-partners (see Figure 2B). Third, borderline traits were positively associated with UPB perpetration in opposite-gender ex-partners whereas these traits were not associated with the number of UPBs perpetrated by same-gender ex-partners (see Figure 2C). As expected (hypothesis 7), none of the interaction terms with clinical status were significant.

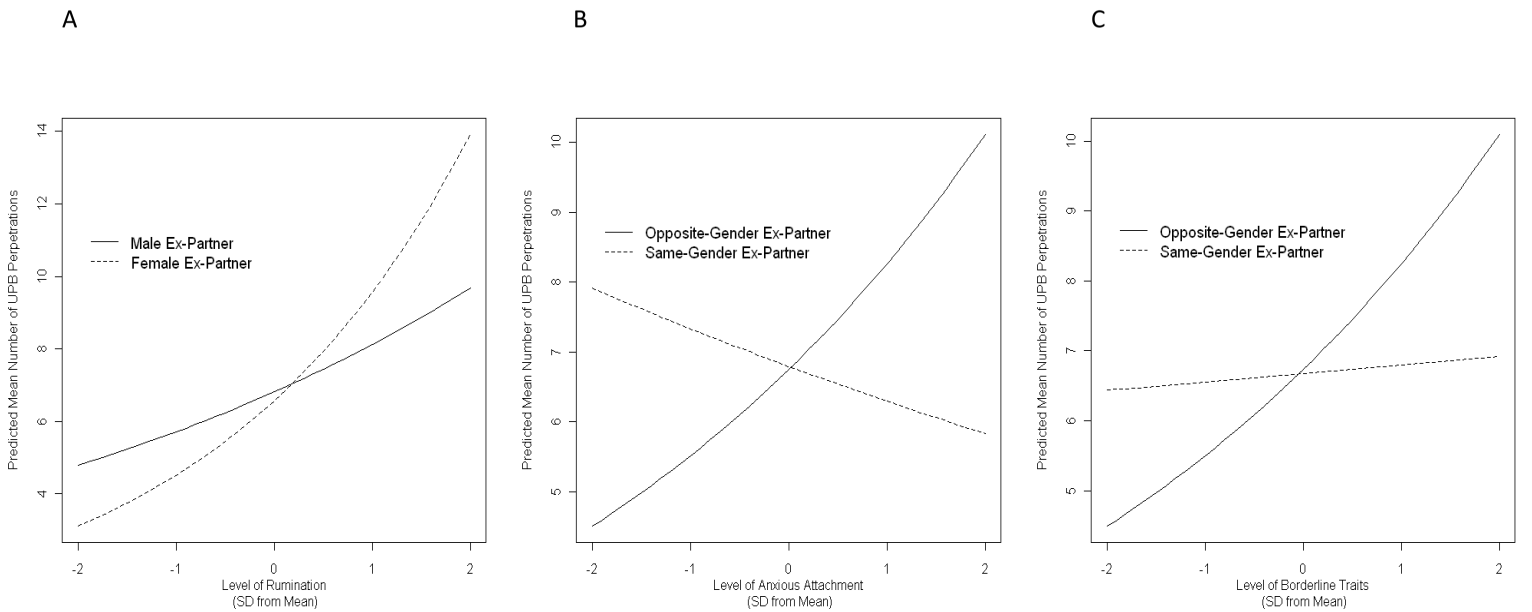

Figure 2. Plot of significant A) Rumination x Gender interaction, *RR* = 1.22, *p* = .018, 95% CI [1.03, 1.44], B) Anxious Attachment x Gender Ex-Partner interaction, *RR* = 0.76, *p* = .003, 95% CI [0.63, 0.91], and C) Borderline Traits x Gender Ex-Partner interaction, *RR* = 0.83, *p* = .046, 95% CI [0.69, 1.00].

DISCUSSION

The present study describes the occurrence of UPBs in adult ex-partners and aimed to perform an integrated examination of breakup, relationship, and individual perpetrator characteristics in order to better explain UPB perpetrations. Additionally, this study aimed to examine differences between male and female, same- and opposite-gender, and clinical and non-clinical ex-partners in the occurrence and prediction of UPB perpetration as differences between these groups have not been extensively explored in the context of post-breakup UPB.

Occurrence of Unwanted Pursuit Behavior

The estimates in the overall sample showed that the majority of ex-partners engage in post-breakup UPBs. These behaviors tend to be perpetrated at rather low frequencies and only for a restricted period of time, however. This finding is in line with UPB investigations in separated college students (e.g., Dutton & Winstead, 2006; Langhinrichsen-Rohling et al., 2000; Wigman et al., 2008; Wisternoff, 2008) suggesting that non-extreme patterns of pursuit are relatively normal after a breakup. Compared to the recent UPB study by De Smet et al. (2012a) in a representative Flemish sample of divorced persons, the proportion of Flemish ex-partners found by this study to have engaged in UPBs was markedly higher, as is the mean number of perpetrated tactics that we present here (respectively 68% vs. 37% and 5-6 vs. 2-3 tactics). This might be explained by this sample's self-selective convenient nature, as estimates of interpersonal aggression tend to be higher in convenience samples compared to representative samples (Nielsen & Einarsen, 2008). The inclusion of younger adults in this study can also explain this divergence, as younger persons have been found to show more UPBs (De Smet et al., 2012a). Similar to the previous study, our participants mainly used hyper-intimacy or surveillance tactics—specifically, making exaggerated expressions of affection, leaving unwanted messages of affection, and monitoring the ex-partner—and

rarely engaged in threatening or aggressive types of pursuit. Related to this, the impact of tactics was perceived as faintly annoying but virtually not frightening or threatening. Despite this, these results should be interpreted with caution as pursuers have the tendency to underreport UPB activities and to underestimate the negative effects of their behavior (Dutton & Winstead, 2006; Langhinrichsen-Rohling et al., 2000; Sinclair & Frieze, 2005). Moreover, according to our model, pursuers were prone to social desirable responding.

In line with our expectations, men and women perpetrated an equal number of tactics over a similar time span. They only differed in specific methods in which they attempted to reestablish the broken intimate relationship: Men more often left unwanted gifts and messages of affection whereas women more often physically hurt their ex-partner. Similar findings have been reported in college student samples showing that men more often conduct ordinary approach behaviors (Sinclair & Frieze, 2000, 2005; Wisternoff, 2008) and women more often physically hurt their ex-partner (Dutton & Winstead, 2006). Gender-specific sociocultural beliefs that promote men to initiate courtship behaviors and requests for intimacy and women as the weaker sex may make it more normative or justifiable for men to display affectionate approaches and for women to engage in aggressive behaviors (Langhinrichsen-Rohling, 2012). Indeed, Thompson, Dennison, and Stewart (2012) found evidence for the sociocultural attitude that a woman's use of violence against her partner is more acceptable, and that women who endorse this attitude self-report higher levels of stalking and associated violence. Although the literature (Sinclair & Frieze, 2000; Spitzberg et al., 2010) suggests that male perpetrators are more conscious of the negative impact of their behaviors, we found no differences in men's and women's appraised impact of their UPBs upon their ex-partner—at least, not at the low levels of annoyance, fear, and threat that we mainly registered in our sample. Possibly, the hypothesized gender difference only comes into play in severe pursuit cases. For example, only in the violent stalking cases in Thompson et al.'s (2012) study, male perpetrators more likely believed they frightened, intimidated,

or harmed their target whereas no such gender difference was observed in non-violent cases.

Our results further show that same-gender ex-couples are equally vulnerable to UPBs than opposite-gender ex-couples: Both groups pursued their ex-partner for equally long and displayed a similar number of UPBs. This contradicts Spitzberg et al.'s (2010) evidence for higher levels of pursuit victimization in same-gender relationships, although it should be noted that their effect size was trivial and they did not take the specific context of the breakup into account. As hypothesized, differences were detected in some of the specific tactics that were perpetrated. In line with Strand and McEwan (2011), same-gender ex-partners engaged in more approach tactics (i.e., engaging in unwanted messages of affection and intruding upon acquaintances of the ex-partner) and threatening behaviors (i.e., leaving or sending threatening objects). Nonetheless, same-gender ex-partners perceived the impact of their behaviors as significantly less threatening than their opposite-gender counterparts. Two explanations seem plausible. First, same-gender ex-partners might have devaluated the impact of their pursuit as it does not fit with the stereotypical case of a man pursuing a woman (Yanowitz & Yanowitz, 2012). Second, targets of same-gender pursuers might have shown fewer signs of feeling threatened: Victims of woman-woman pursuit might articulate less threat as pursuit by women is generally appraised as less threatening than pursuit by a man and victims of man-man pursuit might report less threat as male victims typically feel less threatened (Spitzberg et al., 2010) and are less likely to feel that they are being stalked when the pursuer is a man (Tjaden, Thoennes, & Allison, 2000).

Finally, as hypothesized, the ex-partners in our sample who had undergone or were undergoing psychological guidance or treatment related to their separation represented a more extreme group of pursuers. Similar to clinical groups of stalkers (cf., Spitzberg & Cupach, 2007; Spitzberg et al., 2010), they perpetrated significantly more UPBs—including more threatening tactics (i.e., threatening to hurt themselves, physically threatening their ex-partner)—for a longer period of time and, in reflection of this, perceived more annoyance and fear in their targets. The significant effect of clinical

status on the perpetration of UPBs disappeared in our main effects model and so seems to be mediated by one or several of the risk factors (i.e., rumination, anxious attachment, borderline traits) identified in this study.

Risk Factors of Unwanted Pursuit Behavior

The risk factors pinpointed by the main effects model show that—in line with White et al.'s (2000) integrative contextual developmental model—former partner pursuit is a multiple-determined phenomenon. As expected, a higher number of perpetrated tactics was predicted by certain breakup characteristics (i.e., initiation of the breakup by the ex-partner instead of the participant and more rumination about the former partner), relationship characteristics (i.e., more anxious attachment in the former relationship), and individual perpetrator characteristics (i.e., more borderline personality traits and past delinquent behaviors). The other relationship and individual characteristics included in this study—the degree of avoidant attachment and empathy in the past relationship and the degree of psychopathic and narcissistic traits—did not explain the number of tactics displayed by pursuers.

Taken together, these results might imply that more persistent pursuers are people who possess more stable borderline personality traits that put them at risk of displaying more delinquent behaviors and showing anxious attachment in their intimate relationships. This more anxious attachment style might subsequently make them less likely to initiate a separation and more likely to experience elevated levels of rumination after being rejected. We did not address such interrelationships between our predictors, but previous studies tend to support this profile. It has namely been found that being rejected elicits more obsessive thoughts about the ex-partner (Davis et al., 2000) and that the relationship between anxious attachment and stalking is mediated by being the recipient of the breakup (Dye & Davis, 2003) and obsessive thoughts (Davis et al., 2000). Furthermore, evidence shows that people with borderline traits tend toward fearful or preoccupied attachment patterns in their close relationships (e.g., Levy, Meehan, Weber,

Reynoso, & Clarkin, 2005). Borderline personality types are characterized by impulsivity and instability in interpersonal relationships, self-image, and affect. They have difficulties with being alone and make frantic efforts to avoid real or imagined abandonment (APA, 2000) that match with the need for approval, the inclination to worry about rejection, and the tendency to feel distressed when the attachment figure is unavailable that is described in Brennan et al.'s (1998) anxiety dimension. Borderline personality types also tend to display various forms of delinquent behavior because of their impulsivity, recklessness, and difficulty with controlling anger (APA, 2000). Thus, the higher levels of past delinquent behaviors displayed by more persistent pursuers in our sample might—just as the UPBs themselves—be a product of underlying borderline traits.

Our moderator analyses show that the effects of our risk factors were identical for clinical and non-clinical ex-partners but not for male and female and same- and opposite-gender ex-partners. In contrast to previous observations of similar correlations between obsessive thoughts about the ex-partner and acts of stalking in men and women (Davis et al., 2000), the effect of rumination was significantly stronger for female ex-partners in our sample. In the depression literature, women are consistently found to be more prone to rumination. Their greater tendency to ruminate contributes to more depressive symptoms, which in turn contribute to more rumination (Nolen-Hoeksema, Larson, & Grayson, 1999). According to the relational goal pursuit theory (e.g., Cupach & Spitzberg, 2004), such mutually exacerbating influences between rumination and negative affect are central mechanisms that fuel persistent pursuit. Although these mechanisms are assumed to apply to men and women equally (e.g., Davis, Swan, & Gambone, 2012), it seems that they especially render women to perpetuate in their attempts to reestablish the broken relationship.

Finally, the number of tactics perpetrated by same-gender ex-partners in our sample was, different from the tactics shown by opposite-gender ex-partners, not explained by their degree of borderline traits or anxious attachment in the former relationship. Psychological processes such as separation anxiety that characterize borderline and anxious attached types of persons do not therefore seem to motivate the

perpetration of UPBs by same-gender ex-partners. Based on the same-gender stalking studies by Pathé et al. (2000) and Strand and McEwan (2011), it might be assumed that same-gender pursuers are more motivated by a resentful than by a rejected or affectionate type of motivation. A more dyadic explanation might also be plausible: It is known that same-gender couples have higher levels of equality in their relationships than opposite-gender couples (e.g., Kurdek, 2004) and that the perpetration of UPBs by more anxiously attached persons is lower when separating from a similar more anxiously attached partner than when separating from a dissimilar less anxiously attached partner (De Smet, Loeys, & Buysse, 2012b). Although we did not assess both dyad members' attachment styles, it is possible that more equal attachment characteristics in same-gender ex-couples buffered the perpetration of UPBs by more anxiously attached persons. Clearly, these tentative conclusions need to be further validated.

Strengths, Limitations, and Implications

This paper extends previous research by taking an integrative approach to explaining UPB perpetration that shed light on the relative importance of the different types of risk factors in this study. Previous studies often assessed breakup, relationship, and individual perpetrator characteristics separately (e.g., De Smet et al., 2011; Spitzberg & Veksler, 2007). Yet, this study shows that proximal breakup characteristics are just as important as more distal relationship and individual characteristics in explaining UPB perpetration. In order to further build on an integrative theory of former partner pursuit, more studies that approach UPB perpetration from a multi-faceted perspective seem necessary. As we only assessed a selective set of risk factors, these studies could integrate more breakup variables such as the number of breakups and reunions that occurred previously, relationship characteristics such as violence in the past relationship, and individual perpetrator characteristics such as Axis-I-disorders (e.g., Cupach & Spitzberg, 2004; Davis et al., 2000). As stated by Cupach and Spitzberg (2004): "Ultimately, a complete theory of stalking and unwanted pursuit will need to

accommodate all of these factors" (p. 117). To develop a complete theory, risk factors related to broader sociocultural and social network levels could also be assessed (see White et al., 2000) as well as interrelations between risk factors such as the ones discussed above.

This examination of several groups of ex-partners that have been underrepresented in the field of post-breakup UPB also contributes to the existing knowledge. Overall, the ex-partners' gender and gender of their ex-partner moderated the effects of some of our risk factors on the number of perpetrated UPBs but not the number of UPB perpetrations itself, whereas the ex-partners' post-breakup clinical status did not moderate the effects of the risk factors but did moderate several estimates related to the occurrence of UPB. Building on these results, the pursuer's gender and gender of their ex-partner seem worthwhile to consider in future studies seeking to explain UPB. The observation that borderline traits and anxious attachment cannot explain the perpetration of UPBs in same-gender relationships demands further research to retrieve what triggers UPB in same-gender former partners and why they are different from opposite-gender ex-partners. Although gender only moderated the effect of rumination in this study, more differential effects of the pursuers' gender can be expected for other risk factors not included in this paper. Davis and colleagues (2012), for instance, recently introduced a theory of coercive control that outlines gender differences in control motives underlying persistent pursuit. Next, our results with regard to ex-partners' clinical status seem to imply that ex-partners who have made contact with mental health services due to their separation are more likely to be persistent pursuers who deserve extra attention in the management of UPB. The dynamics of their UPBs were indifferent from the dynamics of non-clinical ex-partners' UPBs. The knowledge of UPB perpetration previously obtained in non-clinical samples of ex-partners therefore seems to transfer to the clinical practice.

Finally, some methodological (dis)advantages of this study merit consideration. First, where previous UPB studies predominantly used college student samples (e.g., Spitzberg & Cupach, 2007), the present investigation employed a more ecological valid

sample of adult ex-partners. However, relative to composition of De Smet et al.'s (2012a) representative sample of adult ex-partners, our convenience sampling strategy chiefly attracted younger and higher educated adults who reported on relatively short-term and mostly childless relationships. This puts constraints on the generalization of our findings to the broader population of separated adults. Second, despite additional efforts to recruit same-gender and clinical ex-partners, these ex-partners were still underrepresented compared to the number of opposite-gender and non-clinical ex-partners in the sample. Third, risk factors were assessed with advanced count models that fitted the skewed distribution of reported UPBs and non-parametric tests were used to compare the occurrence of UPBs across the groups of ex-partners. The assessment of group differences resulted in several interesting findings. Yet, the large number of tests enhanced the risk of false positive effects. Replication of this study's preliminary findings in future research therefore seems necessary. Finally, the data relied on retrospective self-reports. The reports of UPB perpetration were subject to self-presentation concerns and recall biases may have impact upon the retrospective measures in this study. Future studies that combine reports of both ex-partners and use a prospective instead of a cross-sectional design could obtain more objective ratings of the variables and draw further conclusions on the causality of the observed effects. Despite these limitations, this study contributes to a more detailed picture of the occurrence and risk factors of unwanted pursuit as perpetrated by different groups of ex-partners.

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CHAPTER 6

GENERAL DISCUSSION

RECAPITULATION OF THE RESEARCH GOALS

A consistent finding emerging from the recent scholarly attention for stalking is that former romantic partners represent the most significant subgroup of stalkers and unwanted pursuers. Studies in specific samples of ex-partners, examining the broad range of (not per se criminal) unwanted pursuit behaviors (UPBs), have shown that many ex-partners show mild patterns of unwanted pursuit toward their former partner in order to reestablish some form of intimate relationship. The observations that (a) such pursuit is commonly displayed, (b) might be a precursor of more severe forms of stalking, (c) its consequences are overall negative, and (d) are prevalent because relationship breakups are very common these days, legitimate further inspection of the phenomenon of post-breakup UPB.

The present dissertation had two central aims. A first, descriptive aim consisted of having a closer look at the occurrence of post-breakup UPBs in Flanders, where we conducted our research. A second, explanatory objective of our work was to foster the current knowledge on why these behaviors occur and might shift from relatively normal to more persistent patterns of unwanted pursuit. The stalking and UPB literature point at different types of risk factors that are either more proximally or distally related to the perpetration of UPBs after breakup. These can be grouped into characteristics related to the breakup, the pre-breakup romantic relationship, and individual perpetrator characteristics. By means of four empirical studies, we elaborated on this variety of risk factors, starting with examining more proximal breakup characteristics and gradually including more distal pre-breakup relationship and individual perpetrator characteristics as risk factors of former partner UPB in our studies.

More specifically, we began our investigation with questioning whether and how several characteristics of the breakup context were associated with perpetrations of post-breakup UPB (*Chapter 2*). In our following study (*Chapter 3*), we investigated whether and how pre-breakup romantic relationship characteristics were related to post-breakup UPB perpetrations on top of and in interaction with significant breakup

characteristics. Our third empirical study (*Chapter 4*) explored whether the pre-breakup relationship characteristics central in Chapter 3 not only offered intra- but also interindividual explanations for post-breakup UPB perpetrations. In our last study (*Chapter 5*), we assessed the relative importance of several breakup, pre-breakup relationship, as well as individual perpetrator characteristics in explaining post-breakup pursuit tactics, and, we additionally investigated differences between male and female, same- and opposite-gender, and clinical and non-clinical ex-partners in the occurrence and risk factors of UPBs displayed after separation.

When answering these questions, our examination aimed to advance the existing research by its implementation of ecologically valid samples of Flemish adult ex-partners (instead of separated students) and of statistically sound count regression models to analyze the skewed frequency distribution of perpetrated UPBs. Each of our studies furthermore filled specific gaps in the existing research on post-breakup UPB. In the following section, we briefly resume the specific caveats addressed by our studies along with the main findings of the different chapters. After giving a summarizing view on our results and presenting several theoretical implications, we reflect on some methodological considerations of our work and formulate directions for future research. We end this chapter with discussing practical implications of our studies and with a brief conclusion.

OVERVIEW OF THE MAIN FINDINGS

Chapter 2: The Role of Breakup Characteristics

Chapter 2 started from the observation that, in view of the fact that UPBs are mainly elicited in the particular context of breaking up, the study of characteristics of the breakup context as risk factors of UPB perpetration is relatively scarce. By examining associations between multiple psychological breakup characteristics and the perpetration of post-breakup UPBs, we aimed to make a contribution to the existing

research. Inspired by often studied breakup characteristics in the separation literature, we more specifically investigated whether persons' individual adjustment to the breakup and their cognitive appraisals about the separation could explain their engagement in pursuit tactics toward their lost partner. Measures of individual adjustment included both general (i.e., the degree of depressive symptoms and state anxiety) as well as separation-specific (i.e., so called *lonely negativity* and *ex-partner attachment*) individual adjustment measures (cf., Amato, 2000; Sweeper & Halford, 2006). The cognitive appraisals assessed in this study consisted of people's perceptions of the reasons, the initiation, and locus of cause of the breakup (cf., Amato, 2000; Amato & Previti, 2003). With regard to the breakup reasons and locus of cause, our questions were explorative in nature because these characteristics had not been investigated before. With regard to the other breakup characteristics, we expected from previous investigations (e.g., Davis, Ace, & Andra, 2000; Dutton & Winstead, 2006) that persons whose ex-partner most wanted the separation and who reported more difficulties with adjusting to the breakup would perpetrate more UPBs.

Survey data of a convenience sample consisting of 184 ex-partners were used to investigate our questions. A series of models were tested—starting with exploring social desirability and several descriptive characteristics as potential control variables—to assess the effects of the selected risk factors. Eventually, we found that the frequency of reported UPB perpetrations[1] was significantly higher when the respondent was a women, one had a lower than Bachelor's education level, or one responded to the survey in a less socially desirable way. Beyond the effects of these variables, the number of displayed UPBs increased when one felt more lonely-negative by breaking up, one

[1]In this as well as some of the following chapters specific types of zero-inflated (cf., Chapters 2-3) or hurdle (cf., Chapter 5) count regressions were used. As explained in the specific chapters, these models, roughly speaking, assessed the effects of our predictors with respect to the chance of engaging in UPBs on the one hand and with respect to the frequency of perpetrated UPBs on the other hand. In the present section, we limit our discussion to the findings explaining the frequency of perpetrated UPBs as these findings are theoretically and clinically more relevant than the ones explaining the mere absence or presence of these behaviors. Moreover, the majority of our effects were found in association with the frequency rather than the probability of UPBs. Also, the small number of effects found in relation to the chance of showing UPBs practically always overlapped with the ones observed in relation to the amount of shown UPBs.

appraised the ex-partner (instead of oneself) as the breakup initiator, one more strongly attributed the cause of the breakup to the ex-partner or to external factors, or when the other partner's lack in meeting family obligations was appraised as reason for the breakup. When one's own infidelity was reported as breakup reason, the number of self-reported UPBs significantly decreased (see Table 1).

Generally speaking, these results suggest that characteristics of the breakup context, which overall received less research interest, are important candidates for explaining UPBs perpetrated by former partners.

Table I

Overview of the Main Findings Explaining Higher Frequencies of UPB Perpetration

	Chapter 2	**Chapter 3**	**Chapter 4**	**Chapter 5**
Control variables	Women Lower than Bachelor's education ↓ Social desirability	↓ Age Lower than Bachelor's education	Not assessed	Clinical status ↑ Time since breakup ↓ Social desirability
Breakup characteristics	↑ Post-breakup lonely negativity Initiator ex-partner versus self ↑ Locus of cause ex-partner ↑ Locus of cause external factors No infidelity participant Not meeting family obligations by ex-partner	↑ Post-breakup negative affect Initiator ex-partner versus both[†] Initiator self versus both	Not assessed	↑ Post-breakup rumination Initiator ex-partner versus self
Relationship characteristics	Not assessed	↑ Conflict	↑ Anxious attachment actor ↑ Investments actor ↑ Conflict partner[†]	↑ Anxious attachment
Individual perpetrator characteristics	Not assessed	Not assessed	Not assessed	↑ Borderline traits ↑ Past delinquent behavior
Interaction effects	Not assessed	Alternatives x Initiator Alternatives x Negative Affect Satisfaction x Initiator Investments x Initiator Anxious Attachment x Initiator	Alternatives Actor x Gender Alternatives Actor x Partner Satisfaction Partner x Gender Anxious attachment Partner x Gender Anxious attachment Actor x Partner	Post-Breakup Rumination x Gender Borderline Traits x Gender Ex-Partner Anxious Attachment x Gender Ex-Partner

[†] $p < .10$.

Chapter 3: The Role of Breakup and Pre-Breakup Relationship Characteristics

In Chapter 3, we aimed to forward the research on pre-breakup relationship characteristics as risk factors for UPB perpetration. In particular, building further on Chapter 2, we performed a refined analysis of the role of relationship characteristics by taking into account the effects of important breakup characteristics. The breakup characteristics included in this study were the persons' appraisals of the initiation and locus of cause of the breakup and their degree of post-breakup negative affect (i.e., their emotional adjustment to the separation). The investigated relationship characteristics consisted of the participants' reported degree of conflict, anxious attachment, satisfaction, investment size, and quality of alternatives in their relationship before the breakup.

In a first part, we assessed the effects of these relationship characteristics controlling for the effects of significant breakup characteristics as it remains unclear to what extent distal relationship characteristics contribute to explaining UPB perpetrations on top of proximal breakup characteristics. In line with our previous study, we expected that the level of UPB perpetration would be higher among persons who did not initiate the breakup themselves, who experienced more negative affect from the breakup, and who more strongly attributed the cause of the breakup to external factors or the ex-partner. Based on theoretical and empirical evidence, we supposed that higher levels of relational conflict, anxious adult attachment, relationship satisfaction, investment size, and a lower quality of alternatives would increase the number of perpetrated UPBs when controlling for significant breakup characteristics. In a second part, we explored if significant breakup characteristics moderate the association between relationship characteristics and UPB perpetration as no previous study, to our knowledge, yet verified whether the effects of relationship characteristics might differ according to certain breakup conditions by running moderator analyses. For the moderator hypothesis, we expected that the negative impact of the relationship variables would be especially

present in combination with UPB-enhancing breakup conditions such as not having initiated the breakup or feeling highly emotionally disturbed by the separation.

Data from a representative community sample of 396 adult ex-partners were analyzed. Based on a first series of regressions assessing the effects of control variables and breakup characteristics, the frequency of perpetrated UPBs was found to be significantly higher for ex-partners who were younger, who had a lower than Bachelor's education level, whose breakup was self or ex-partner instead of mutually initiated, and who showed elevated levels of negative affect related to their breakup (cf., Table 1). The locus of cause variables provided no significant explanations for former partner pursuit in this study. Except for the positive association between the level of relational conflict and the frequency of perpetrated UPBs, the main effects of the distal relationship characteristics did not contribute explained variance to the number of UPB perpetrations on top of the significant proximal breakup characteristics.

Our moderator analyses, however, corroborated the expected associations between our relationship variables and UPB perpetration (see Table 1). Yet, these associations only appeared to exist under certain breakup conditions. We more specifically found that persons having a lower quality of alternatives for the relationship did show more UPB perpetrations, only when their ex-partner most wanted the breakup or when they experienced a higher level of emotional upheaval from breaking up. Also, persons reporting higher levels of satisfaction, investments, and anxious attachment in their broken relationship engaged in an increased pursuit of their former partner, only when their ex-partners (or to a lesser extent, both ex-partners equally) most wanted the relationship to end. Higher levels of investments, satisfaction, anxious attachment, and a lower quality of alternatives did not explain the perpetration of more UPBs when the person him- or herself wanted the relationship to end. In other words, according to our data, ex-partner and mutual breakup initiation increased, whereas self-initiation safeguarded the inimical effects of the relationship characteristics.

To conclude, distal relationship characteristics are able to explain former partner pursuit but their association with UPB perpetration is more complex than previously thought and largely depends upon certain proximal properties of the breakup.

Chapter 4: Interindividual Effects of Pre-Breakup Relationship Characteristics

Chapter 4 started from the observation that existing explanatory studies on UPB perpetration have chiefly assessed *intra*individual or *actor* effects of risk factors whereas the assessment of possible *inter*individual or *partner* effects remain underexposed. Stated differently, the existing studies mainly examined associations between a person's UPB and his or her own characteristics, opposed to associations between a person's UPB and his or her partner's characteristics. However, as UPBs are often displayed between former relationship partners who are—according to the notion of interdependence—likely to mutually influence one another (Kelley & Thibaut, 1978; Thibaut & Kelley, 1959), it seemed relevant to look at feasible interindividual explanations for post-breakup UPB perpetration.

To address this research gap and to further deepen our investigation of relationship characteristics, we explored in this study whether a person's reported level of anxious attachment, satisfaction, quality of alternatives, investments, or conflict in the previous relationship not only explained their own, but also their ex-partner's engagement in UPBs after separation. These actor and partner effects were assessed with actor-partner interdependence models (APIMs; e.g., Cook & Kenny, 2005; Kenny, Kashy, & Cook, 2006) using data of 46 formerly married couples of which the majority belong to sample used in the previous chapter. In addition, we explored if gender differences in the actor and partner effects and if specific combinations of actor and partner effects contributed to explaining UPB. As such, we examined for each relationship characteristic its main actor, partner, and gender effect, as well its Actor x Gender, Partner x Gender, and Actor x Partner interaction effect with respect to UPB perpetration. We expected positive actor effects of anxious attachment, satisfaction,

investment size, and conflict and a negative actor effect of quality of alternatives on UPB perpetration. The main partner effects and the Actor x Gender, Partner x Gender, and Actor x Partner interaction effects were considered explorative in nature as they had not been studied before in the context of UPB perpetration.

As expected (see Table 1), we found that actors' levels of anxious attachment and investments in the past relationship positively related to their perpetration of UPBs. The expected negative actor effect of alternatives was also confirmed, yet, according to the significant Actor x Gender interaction, only in male actors. Male actors namely perpetrated more post-breakup UPBs when their levels of pre-breakup alternatives were lower, whereas female actors engaged in more UPBs when their levels of alternatives were higher. The Actor x Partner interaction effect of alternatives further specified this effect. More specifically, the steepest increase in men's perpetrated UPBs was observed when male actors with low levels of alternatives separated from female partners with high levels of alternatives whereas the steepest increase in women's perpetrated UPBs appeared when female actors with high levels of alternatives separated from male partners with low levels of alternatives.

The APIMs of conflict, satisfaction, and anxious attachment revealed several additional interindividual explanations for UPB perpetration. The partner effect of conflict was marginally significant: Increased partners' perceived levels of relational conflict tended to be associated with increased levels of UPB shown by actors. Of satisfaction and anxious attachment significant Partner x Gender interactions were found. Namely, more satisfied female partners or more anxiously attached female partners reduced the number of pursuit tactics shown by male actors, whereas more satisfied male partners or more anxiously attached male partners increased the number of pursuit tactics shown by female actors. The Actor x Partner interaction of anxious attachment further showed that the pairing of a highly anxious actor and a highly anxious partner resulted in more UPB perpetration among women than men. The pairing of a highly anxious actor and a partner with low anxiety resulted in a steep increase of perpetrated UPBs in both women and men.

Summarized, the partner, Partner x Gender, and Actor x Partner effects in this study signal for the first time that next to intraindividual also more complex interindividual influences lie behind the perpetration of UPBs.

Chapter 5: The Role of Breakup, Pre-Breakup Relationship, and Individual Perpetrator Characteristics

In our final chapter, we extended our research conducted thus far by including individual perpetrator characteristics in our explanatory analyses. Although researchers (e.g., White, Kowalski, Lyndon, & Valentine, 2000) belief that stalking and UPB are complex behaviors influenced by variables at various levels of analysis (e.g., the intrapersonal, dyadic, or situational level), there is a glaring lack of studies integrating different types of risk factors in their examination of post-breakup UPB. To act upon this caveat, we performed in this study a joint assessment of several breakup (i.e., initiator status and post-breakup rumination), pre-breakup relationship (i.e., attachment style and empathy in the romantic relationship with the ex-partner before separation), and individual perpetrator characteristics (i.e., past delinquent behavior, psychopathic, borderline, and narcissistic traits) and aimed to shed light on their relative importance in explaining former partner pursuit. This last chapter furthermore looked for differences in the occurrence and risk factors of UPB as displayed by distinct groups of ex-partners that have been underexposed in the post-breakup UPB literature. These groups consisted of male and female ex-partners, same- and opposite-gender ex-partners, and ex-partners undergoing post-breakup psychological treatment or not.

By means of convenience sampling, a total of 631 ex-partners (including 225 male, 178 same-gender, and 143 clinical ex-partners) were eligible for our analyses. Except for some differences in specific UPB items, male and female ex-partners and same- and opposite-gender ex-partners perpetrated a similar number of UPBs for an equally long period of time. As expected, ex-partners in post-breakup treatment represented a more severe group of pursuers as they perpetrated significantly more UPBs (including more

severe pursuit tactics) within a longer time span compared to the non-clinical ex-partners.

A first model exploring control variables confirmed that the number of perpetrated UPBs was higher among clinical relative to non-clinical ex-partners. The frequency of UPB perpetrations was furthermore positively associated with the time since one had broken up and negatively associated with participants' social desirability scores. Controlling for these effects, several of the risk factors of interest in this study reached significance (for an overview, see Table 1). In line with our expectations, a higher number of perpetrated tactics was predicted by breakup characteristics (i.e., being the recipient instead of the initiator of the breakup and more rumination about the former partner), relationship characteristics (i.e., more anxious attachment in the former relationship), as well as individual perpetrator characteristics (i.e., more borderline personality traits and past delinquent behaviors).

Finally, as shown in Table 1, we found some differential effects of our risk factors for male and female and for same- and opposite-gender ex-partners: The positive association between post-breakup rumination and UPB perpetration was significantly stronger for female than male ex-partners. Also, borderline traits and anxious attachment were positively associated with UPB perpetration in opposite-gender but not in same-gender ex-partners. For ex-partners in treatment since their separation to those not in treatment no dissimilar effects of the risk factors were found.

Taken as a whole, this study's findings validate the assumption that former partner pursuit is a phenomenon determined by various types of characteristics. The examination of several groups of ex-partners that have been underrepresented in the field of post-breakup UPB refine the existing knowledge on unwanted relationship pursuit.

A SUMMARIZING VIEW ON THE OCCURRENCE OF POST-BREAKUP UNWANTED PURSUIT BEHAVIOR

It has been argued that relationship separations often bring forth the perpetration of intimacy-seeking UPBs. Most UPB (as well as stalking) studies investigated these behaviors in English-speaking college student samples outside Europe (e.g., Spitzberg & Cupach, 2007). Therefore, a first descriptive aim of our research was to take stock of the occurrence of UPBs in more ecologically valid community samples of Flemish divorced or separated adults. Now, what can we conclude about the occurrence of post-breakup UPBs in Flanders?

A consistent finding obtained in Chapters 2, 3, and 5[2] was that more severe threatening and physically aggressive types of behaviors[3] were rarely displayed opposed to milder sorts of pursuit tactics. Following the classification of Cupach and Spitzberg (2004; Spitzberg & Cupach, 2007), the most common types of behaviors reported by Flemish ex-partners consisted of interactional contacts directed toward face-to-face or proximal conversation with the ex-partner[4], hyper-intimacy behaviors reflecting typical courtship activities taken to an excessive level[5], and surveillance tactics attempting to retrieve information about the ex-partner[6]. Throughout Chapters 2, 3, and 5, the percentage of ex-partners reporting engaging in at least one UPB fluctuated from 17% in Chapter 2, over 37% in Chapter 3, to 68% in Chapter 5. In a similar vein, the mean number of perpetrated UPBs varied: We observed an average of one (*M* = 0.97, *SD* =

[2]Because Chapter 4 reports on only a small sample of ex-couples and because the majority of the participants in this chapter were part of the larger representative sample of ex-partners examined in Chapter 3, we do not discuss data on the occurrence of UPB obtained in Chapter 4.

[3]More specifically, leaving or sending the ex-partner threatening objects (Chapters 3 and 5), showing up at places in threatening ways (Chapters 3 and 5), sexually coercing the ex-partner (Chapters 2 and 3), and physically injuring the ex-partner (Chapter 2), physically constraining the ex-partner, or physically endangering his/her life (Chapters 3 and 5).

[4]More specifically, starting an unwanted conversation in person (Chapter 2).

[5]More specifically, making exaggerated expressions of affection (Chapters 3 and 5) and leaving unwanted messages of affection (Chapter 5).

[6]More specifically, monitoring the ex-partner (Chapters 3 and 5), watching the ex-partner (Chapter 3), and asking friends for information about the ex-partner (Chapter 2).

3.32, range: 0–31), two to three (*M* = 2.48, *SD* = 6.29, range: 0–68), and five to six behaviors (*M* = 5.70, *SD* = 7.61, range: 0–49) in, respectively, Chapters 2, 3, and 5.

Generally speaking, it can be concluded from our studies that a substantial percentage of Flemish ex-partners perpetrate UPBs, consisting of mainly mild types of tactics displayed in relatively limited frequencies. The above-mentioned large standard deviations and ranges in our studies point at important individual differences in the extent to which these behaviors are shown. Also, although mainly mildly intrusive types of tactics were registered, a small number of persons did actually admit perpetrating more severe threatening or aggressive types of tactics. These observations suggest that in a small, yet, significant portion of ex-partners mild patterns of pursuit escalate into more persistent forms of pursuit and/or the use of more severe types of UPB that might qualify as stalking.

Our findings on the occurrence of UPBs in Flemish ex-partners are largely in line with previous UPB studies conducted in college student samples (e.g., Davis et al., 2000 Dutton & Winstead, 2006; Langhinrichsen-Rohling, Palarea, Cohen, & Rohling, 2000; Williams & Frieze, 2005; Wisternoff, 2008). These studies likewise state that ex-partners mostly engage in a modest number of mainly benign types of unwanted tactics (typically interactional contacts, mediated contacts, hyperintimacy behaviors, or surveillance tactics akin to our studies). However, they have detected considerable higher estimates of post-breakup UPB perpetration up to 97% (Williams & Frieze, 2005; Wisternoff, 2008) or 99% (Langhinrichsen-Rohling et al., 2000) comparing to the 17% - 68% estimate obtained in our studies. To explain the varying estimates, between the previously published studies and our studies as well as among our own studies, several reasons can be put forward.

First, the lowest estimate obtained in Chapter 2 (17%, *M* = 0.97) most likely result from the alternative reference period adopted in this study: In this chapter ex-partners reported how often they pursued their former partner *in the last two weeks*, whereas in our other chapters ex-partner reported on their pursuit displayed *since the breakup*. Chapter 2's use of the Unwanted Pursuit Behavior Inventory (Palarea & Langhinrichsen-

Rohling, 1998), which covers a smaller list of tactics opposed to the Relational Pursuit-Pursuer Short Form (Cupach & Spitzberg, 2004) used in our subsequent studies, might additionally explain the lower estimate attained in Chapter 2. This method variance restricts the comparability between our first and later empirical studies.

Second, specific sample characteristics might partly account for the fluctuating estimates. The lower estimate of Chapter 3 (37%, *M* = 2.48) opposed to the higher estimate of Chapter 5 (68%, *M* = 5.70) and of previous post-breakup UPB studies, might be due to Chapter 3's utilization of a unique representative sample of ex-partners. It has namely been argued that estimates of interpersonal aggression are lower in representative compared to convenience samples (Nielsen & Einarsen, 2008). Our samples further differed with respect to the mean duration participants had been separated from their partner. The inclusion criterion of being separated within the last two years, resulted in a sample of more recently separated persons in Chapter 5. It seems probable that, taking into account the retrospective nature of our studies, the participants in Chapter 5 recalled a higher number of tactics since they broke up more recently than the participants in Chapters 2 and 3. The positive effect of the control variable *time since the breakup* (see Table 1) on the other hand suggests that some time needs to elapse for a higher number of tactics to be displayed, making this explanation less clear-cut. A more univocal explanation for the varying estimates refers to the participants' mean ages. In student samples as well as in Chapter 5, which included a higher number of younger adults than Chapters 2 and 3, clearly elevated estimates were observed. Our observed negative age effect (see Table 1) parallels the assumption that higher numbers of UPB are present among younger persons (see also, Ravensberg & Miller, 2003). It also needs to be stated that the inclusion of a clinical subsample of ex-partners in Chapter 5 possibly lifted up the overall estimates as clinical opposed to non-clinical ex-partners were found to perpetrate more UPBs (cf., Table 1).

Third, another possibility for the lower UPB estimates in this dissertation relative to previous studies, might be that our participants were to a certain extent reluctant to admit having perpetrated such deviant types of behaviors. This is underscored by the

negative social desirability effect that we fairly systematically observed (see Table 1) and may be one of the downsides of using questionnaires or of solely relying on the perpetrator's perspective to map the occurrence of unwanted relationship intrusions. We will come back to this issue in the further course of this text. Moving a step further in this explanation, it is probable that persons who were pursuing their former partner were not only hesitant to admit having performed UPBs but also less likely to volunteer to participate in our studies. The presumption that such a sampling bias occurred, cannot be answered with our data.

Finally, to fulfill the list of significant control variables, we resume that next to the effects of time since the breakup, age, clinical status, and social desirability described above, we repeatedly found that persons having a lower than Bachelor's education level commit more UPBs (see Table 1). Also, female ex-partners performed a higher number of tactics than male ex-partners in Chapter 2. Yet, this looks like a coincidental effect as in our other chapters and previous examinations (e.g., Dutton & Winstead, 2006; Langhinrichsen-Rohling et al., 2000) men and women perpetrated a similar number of UPBs. Apart from these control variables, the main explanatory objective of our work was to assess the effects of several breakup, relationship, and individual perpetrator characteristics. In the subsequent section, we integrate our results related to these characteristics.

A SUMMARIZING VIEW ON AND THEORETICAL IMPLICATIONS OF THE RISK FACTORS FOR POST-BREAKUP UNWANTED PURSUIT BEHAVIOR

Breakup Characteristics

Taken together, the current data provide a positive answer to our research question whether characteristics of the breakup context are linked with perpetrations of post-breakup UPB. Confirming prior investigations (e.g., Cupach, Spitzberg, Bolingbroke, & Tellitocci, 2011; Dennison & Stewart, 2006; Dutton-Greene, 2004; Dutton & Winstead,

2006; Wisternoff, 2008), the difficulty with which one emotionally and cognitively adjusted to the breakup showed a robust relationship with the number of committed UPBs. That is, a positive relationship was found between the pursuit of one's former partner and breakup-related feelings of loneliness (in Chapter 2), general negative affect (in Chapters 2 and 3), and cognitive rumination (in Chapter 5, where this effect furthermore appeared to be significantly stronger for female than male ex-partners).

The specific role of the perpetrator in ending the relationship was also robustly associated with the engagement in pursuit tactics. Overall, analogous to previous studies (e.g., Cupach & Metts, 2002; Davis et al., 2000; Dye & Davis, 2003; Wisternoff, 2008), people's participation in the decision to end the relationship seemed to drop the number of displayed UPBs. Namely, persons who most wanted the breakup oneself enacted a lower number of UPBs opposed to persons whose ex-partner most wanted the separation (cf., Chapters 2 and 5). Also, when both ex-partners equally wanted the breakup there appeared to be a tendency among former partners to display a lower number of tactics (only in Chapter 3). Partial evidence was found that people's causal attributions of the breakup—namely, more strongly attributing the cause of the breakup externally to their ex-partner or to external factors—elevated the number of shown UPBs (observed in Chapter 2 but not in Chapter 3). Finally, some specific reasons for breaking up (only examined in Chapter 2)—namely, the absence of own infidelity or the presence of not meeting family obligations by the ex-partner as breakup reasons—explained elevated levels of UPB.

To our opinion, the current results both complement and extend the existing theory and research. The effects of external loci of cause and reasons for the breakup are new for the research field, but need further validation. The findings with respect to initiator status and post-breakup adjustment chiefly replicate previous research and strengthen the importance of these variables as determinants of post-breakup UPB.

A first, overall theoretical implication of these findings relates to the traditional psycho-centric and clinical/forensic perspective taken by researchers to explain stalking behavior (e.g., Meloy, 1998). According to Cupach and Spitzberg (2004) "the breadth of

studies on individual factors associated with stalking and the dearth of studies on temporal and contextual factors associated with stalking illustrate an important disciplinary bias of stalking research" (p. 117). Our present findings on characteristics related to the breakup context address this bias and illustrate the importance of also including contextual factors (next to more stable disordered or deviant individual factors) as relevant determinants impacting on the perpetration of post-breakup UPBs.

A second theoretical implication refers to our finding that low levels of emotional and cognitive well-being after the break robustly affected UPB perpetration. The relational goal pursuit theory (Cupach & Spitzberg, 2004) is one of the few theories that identifies proximal determinants that transform more ordinary relationship pursuit behaviors into more excessive and obsessive patterns of pursuit. One of its central assumptions is that negative affect and rumination, produced by blocking of one's goal to have a relationship with a specific person, mutually exacerbate one another and foster persistence in persons' pursuit behavior. This recent theory is currently being empirically tested (e.g., Cupach et al., 2011; Spitzberg, Cupach, Hannawa, & Crowley, 2008). Our results on the association between breakup adjustment and UPB perpetration provide support for (parts of) this theoretical framework.

Third, the cognitive appraisals of the separation included in this dissertation (i.e., ex-partners' perceptions of the reasons, the initiation, and locus of cause of the breakup) have been mainly examined in relation to individual's well-being after separation (e.g., Amato, 2000; Amato & Previti, 2003; Tashiro & Frazier, 2003). The fact that they also relate to UPB perpetration is not surprising as pursuing one's ex-partner seems to a large extent a behavioral manifestation of not being able to adjust to the breakup. Consequently, the stalking and UPB research field, which still remains fairly pre-theoretical, might gain from the theoretical insights obtained in the broad literature on the consequences of breaking up for adults.

Romantic Relationship Characteristics

Throughout several chapters the role of pre-breakup relationship characteristics was studied. In Chapter 3, pursuers' degree of reported conflict in the past relationship positively related to their perpetration of UPBs. Yet, in Chapter 4, not the pursuers' but their partners' conflict reports tended to explain higher levels of post-separation UPB. Overall, in line with numerous studies (e.g., Coleman, 1997; Dye & Davis, 2003; Langhinrichsen-Rohling et al., 2000; Roberts, 2002, 2005; Wigman, Graham-Kevan, & Archer, 2008), our work evidences that higher-conflict romantic relationships produce elevated levels of post-breakup UPB and *indirectly* joins the conviction shared by researchers that relational stalking and domestic violence are closely linked phenomena (e.g., Douglas & Dutton, 2001).

As vigorously found in prior investigations (e.g., Davis et al., 2000; Dutton & Winstead, 2006; Dye & Davis, 2003; Kamphuis, Emmelkamp, & de Vries, 2004; Langhinrichsen-Rohling et al., 2000; MacKenzie, Mullen, Ogloff, McEwan, & James, 2008; Tassy & Winstead, 2010; Wigman et al., 2008; Wisternoff, 2008), being more anxiously attached in the past relationship led to a higher number of UPBs when breaking up (cf., Chapters 3, 4, and 5). However, the negative impact of anxious attachment on UPB did not hold for those ex-partners who initiated the breakup oneself and for those ex-partners who separated from a partner of the same gender (cf., Anxious Attachment x Initiator interaction in Chapter 3; Anxious Attachment x Gender Ex-Partner interaction in Chapter 5). Anxious attachment also revealed important interpersonal explanations for UPB (i.e., significant Partner x Gender and Actor x Partner interaction effects in Chapter 4). Similar to previous studies (e.g., Dutton & Winstead, 2006; Lewis, Fremouw, Del Ben, & Farr, 2001), the degree of avoidant attachment as well as empathy in the broken relationship (only assessed in Chapter 5) did not affect the extent to which UPBs were shown.

In general, no main effects of the investment model variables were observed (cf., Chapters 3 and 4; expect for the main actor effect of investments in Chapter 4). This

resembles preceding studies that generally failed to find robust main effects of the investment model components (Dutton & Winstead, 2006; Dye & Davis, 2003; Tassy & Winstead, 2010; Wisternoff, 2008). Nevertheless, according to our observed interaction effects, the investment model variables *did*—under certain conditions—elicit higher numbers of UPB. More specifically, having a lower quality of alternatives for the relationship resulted in more UPBs among men (cf., Actor x Gender interaction in Chapter 4), among persons whose ex-partner initiated the breakup (cf., Alternatives x Initiator interaction in Chapter 3), or persons who more strongly emotionally suffered from breaking up (cf., Alternatives x Negative Affect interaction in Chapter 3). Also higher levels of relationship satisfaction and investments encouraged persons to pursue their former partner in those cases where the other partner (or to a lesser extent, both ex-partners) initiated the breakup (cf., Satisfaction x Initiator and Investments x Initiator interactions in Chapter 3). Finally, not only the pursuers' but also their counterparts' levels of pre-breakup satisfaction and alternatives impacted on the pursuers' performance of UPBs (cf., the Partner x Gender interaction of satisfaction and the Actor x Partner interaction of alternatives in Chapter 4).

Theoretically, our results imply that complex associations exist between relationship characteristics and the perpetration of UPB. First (cf., Chapter 3), it seems that important interactions between distal relationship characteristics and proximal breakup characteristics need recognition. Our observed interactions show that relationship properties do explain UPB perpetration but that their influence depends on breakup conditions, especially on who initiated the separation. Breakup-related negative affect much less appeared as a moderating variable. Probably, this variable is (as in previous studies; e.g., Davis et al., 2000; Dye & Davis, 2003; Wisternoff, 2008) rather a mediating factor *explaining* instead of *altering* the association between relationship variables and UPB perpetration. Second (cf., Chapter 4), several new interindividual effects of our relationship characteristics were observed, which underline the value of conceptualizing UPB as a relational, interdependent phenomenon that goes beyond the individual pursuer. Third, differential effects according to the perpetrator's gender (cf.,

Chapter 4) and gender of his/her ex-partner (cf., Chapter 5) further complicated the impact of relationship characteristics on the perpetration of UPBs and seem to deserve further theoretical consideration. In the current establishment of stalking and UPB theories the role of gender has been largely ignored (Langhinrichsen-Rohling, 2012).

Our findings also have specific implications for the attachment and the investment model theory. Whereas the attachment theory has been widely adopted by stalking and UPB researchers, the investment model theory has received much less empirical support in order to explain stalking and UPB perpetration. Yet, our results clearly demonstrate the relevance of *both* explanatory frameworks for understanding unwanted relationship pursuit. The new and more complex associations found between anxious attachment and the investment model components on the one hand and former partner pursuit on the other hand as outlined in the previous paragraph furthermore contribute to a refinement of both theories' application to the dynamics of unwanted pursuit.

Individual Perpetrator Characteristics

One of our studies (Chapter 5) allowed us to asses the importance of individual perpetrator characteristics in explaining former partner pursuit. This study showed that, in addition to certain breakup and pre-breakup relationship characteristics, particular individual traits relate to the persistence with which one pursues a former partner. More precisely, in line with preceding studies (e.g., Meloy, 1996; Morrison, 2008; Roberts, 2002), persons who displayed more past delinquent behaviors more frequently committed pursuit tactics. Also borderline traits showed a positive relationship with UPB perpetrations (only among ex-partners who separated from a partner of the opposite gender; cf., Borderline Traits x Gender Ex-Partner interaction). Narcissistic and psychopathic personality traits were unrelated to post-breakup UPBs. These observations harmonize with prior research findings (e.g., Douglas & Dutton, 2001; Lewis et al., 2001; Meloy, 1996; Rosenfeld & Harmon, 2002; Spitzberg & Veksler, 2007).

The results summarized here imply that the traditional clinical/forensic perspective taken by researchers in the stalking literature (e.g., Meloy, 1998) holds, even for explaining mild types of UPB in non-clinical/forensic community samples of ex-partners. This perspective complements the relational and contextual view on stalking and UPB that is more recently taken by a growing number of researchers (e.g., Cupach & Spitzberg, 2004; Spitzberg & Cupach, 2003) and is also supported by our results.

To conclude, our research demonstrates that risk factors related to the breakup (mainly initiator status and post-breakup adjustment), risk factors related to the relationship (relational conflict, anxious attachment, and the investment model components with the latter two affecting UPB perpetration mainly through more complex interaction effects as indicated in Table 1), as well as clinical/forensic risk factors related to the individual (i.e., borderline traits and past delinquent behavior) explain UPB. Consequently, it supports the use of theories that approach stalking and UPB perpetration from a multi-faceted perspective. White et al.'s (2000) integrative contextual developmental model is currently the only theory in the stalking research field that takes such a perspective by describing risk factors on the intrapersonal level of the perpetrator, the dyadic, the situational, and, even the sociocultural and social network level. Unfortunately, this model exclusively focuses on male stalking and does not specifically apply to breakup stalking or UPB. Langhinrichsen-Rohling and Taylor's (2003) model of relationship factors is, on the other hand, an exceptional theory that does apply to breakup stalking. However, it misses an integrative approach that accounts for variables at multiple levels of analysis. Based on this state of the art, we believe that further theoretical development should combine a focus on post-breakup pursuit with an integrative perspective on its risk factors. Next to investigating effects of a wide array of predictors, the issue at stake will be to determine the strength of the effects of predictors (i.e., their relative value) on unwanted pursuit. In addition, based on our above results, it seems relevant in ensuing theoretical work to account for more complex associations these risk factors have with post-breakup UPB.

METHODOLOGICAL CONSIDERATIONS AND DIRECTIONS FOR FUTURE RESEARCH

Some methodological aspects of our work deserve further consideration. In this section, we reflect on the methodological pro's and con's of our studies and propose several related recommendations for future research.

Sample Issues

A unique aspect of our work is that it represents one of the first examinations on UPB perpetration in samples of divorced or separated adults in Flanders. This can be considered as a notable strength as the lion's share of the UPB research has examined samples of separated college students in non-European, English-speaking countries (e.g., Spitzberg & Cupach, 2007). Although we had the opportunity to investigate a representative sample of ex-partners (cf., Chapter 3), the majority of our studies were convenient in nature (cf., Chapters 2, 4, and 5). Consequently, a cautious stance with respect to generalizing our findings to the broader population of separated adults remains imperative. Next to differences in our use of convenience versus representative samples, our samples also differed with respect to other characteristics (e.g., the participants' mean ages/relationship duration/time since the separation, the proportion of persons having a lower education level/children with their ex-partner/a new partner at the time of the assessment, and the in- or exclusion of clinical ex-partners/ex-partners who separated from a partner of the same gender/ex-partners who had been separated instead of legally divorced). Although these sample variances were partly functional (e.g., they allowed to assess understudied differences between distinct groups of ex-partners in Chapter 5), they might restrict the comparability of our studies.

In our opinion, it is recommended that future research questions are tested in ecologically valid samples of adult ex-partners. As young adults' experiences with and motivations behind stalking and UPB tend to differ from those of adults (e.g., Evans & Meloy, 2011; Ravensberg & Miller, 2003) and as adults' breakups generally have more

complex consequences (e.g., legal, financial, familial, logistical), the findings based on separated student likely have a limited applicability for adults ex-partners. Depending on the balance between cost and time efficiency on the one hand and the importance of acquiring external valid data on the other hand, researchers might opt for recruiting convenience either representative samples of adult ex-partners. To assert whether our findings can be generalized to different cultures or countries, we believe it would be interesting to learn more about cultural differences in stalking and UPB. Differences between European and non-European samples, Western and non-Western countries, or ex-partners belonging to different ethnic groups seem relevant to assess. To date, very little research has been undertaken to investigate intrusive contact across different cultures (e.g., Jagessar & Sheridan, 2004). Finally, based on our observed differences in the prediction of UPB by breakup initiators and non-initiators, male and female ex-partners, and same- and opposite-gender ex-partners (cf., Table 1), initiator status and the pursuer's gender and gender of their ex-partner represent essential elements to consider in future UPB perpetration research (see also, Langhinrichsen-Rohling, 2012).

The Analysis of Dyadic Data

Despite its convenient nature as well as its limited size, we believe that our inclusion of an ex-couple sample (in Chapter 4) made an important contribution to the existing research that, to the best of our knowledge, has virtually always sampled individual ex-partners. The results obtained in this dissertation demonstrated that characteristics of both partners play a role in UPB perpetration and, consequently, clearly stress the relevance of including dyadic data in future studies.

Future dyadic studies could continue exploring interpersonal explanations for UPB or start investigating micro-leveled interaction processes between pursuers and targets to develop a more complete understanding of the dynamic nature of UPB. Based on the idea that "no chess game can be fully understood without considering the countermoves in reaction to the moves" (Cupach & Spitzberg, 2004, p. 119), it would, for instance, be

interesting to examine how targets' responses to an intrusive event impact on pursuers' subsequent actions, and how these latter actions in turn influence targets' reactions.

The Perpetrator's Perspective

Whereas many UPB and stalking studies in normal populations are of victims, the present work investigated UPB from the perpetrator's perspective. Working with this perspective allowed us to gather self-judgments of the personal characteristics, thoughts, or feelings that put persons at risk to engage in UPBs. Although other- (i.e., victim) and self-ratings of, for instance pursuers' personality characteristics, share an ample level of agreement, the use of other-ratings is assumed to be a second-best option in case the perpetrator's perspective is not available (Kamphuis et al., 2004). Further, as we—relying on the perpetrator's perspective—were able to detect quite substantial levels of UPB (mainly in Chapter 5) and to effectively predict them, our study (in line with previous ones; e.g., Davis et al., 2000) supports the promise of anonymous self-reports as a useful technique to investigate post-breakup UPB. Nevertheless, it cannot be denied that our self-reports had probably been susceptible to underreporting. Studies with individual ex-partners namely consistently observed that persons in the role of perpetrator report less UPBs than persons in the role of victim (e.g., Dutton & Winstead, 2006; Sinclair & Frieze, 2005). It seems possible that the persons completing the measure might not have been aware that their pursuit behaviors were unwanted behaviors. The underreporting of UPBs also likely results from perpetrators' cognitive rationalizations such as minimizing the malicious intent or the unwanted nature of their pursuit (e.g., Cupach & Spitzberg, 2004) or, as shown by our studies, from a tendency to present oneself in a socially desirable manner.

In this respect, it would be interesting in future studies to investigate whether findings can be cross-validated when using multiple informants. Ideally, at least the victim's and perpetrator's perspective are combined in future surveys. Studies that collect each of the dyad members' reports on both their own and their ex-partners'

perpetrated UPBs seem most ideal. Such studies could, for example, assess the degree to which UPB events are verified or not by partners who report on the same breakup or whether perpetrator characteristics also explain the other members' reports of UPB victimization.

A Dimensional Versus Categorical View on Unwanted Pursuit Behavior

Theoretically, UPB is conceptualized as a dimensional construct that ranges from mild to severe behaviors and might include stalking behaviors when episodes become more extreme (e.g., Cupach & Spitzberg, 1998). In line with this conceptualization, we adopted a one-dimensional view on UPB and analyzed the total UPB scale score created by summing up the frequency rating of all UPB-items. In contrast, several researchers have followed a categorical view by differentiating milder forms of UPB from more severe forms of stalking.

We did not opt for a categorical approach as severe patterns of UPB were underrepresented in our samples and as it is difficult to determine when relatively innocuous pursuit behaviors turn into stalking. Despite variations in stalking laws, there are four key issues central to defining stalking: malicious intent of the perpetrator to cause fear or harm to the victim, victims' fear, repeated (i.e., frequent), and persistent behaviors (i.e., behaviors implying some degree of duration; e.g., Spitzberg & Cupach, 2007; Thompson & Dennison, 2008). However, none of these elements provide an optimal cut-off point at which researchers can reliably decide that a certain behavioral pattern constitutes stalking. First, subjective reports of intentions by the perpetrator are likely to be unreliable as perpetrators tend to cite more neutral or positive motives for their behavior (e.g., Finch, 2001). Second, the fear standard is questionable as some people self-identify as a stalking victim even if they did not experience fear (Tjaden, Thoennes, & Allison, 2000). Reliance on perpetrators' subjective perceptions of the impact of their behaviors may again be untrustworthy as pursuers tend to have little insights in the negative effects of their pursuit (e.g., Langhinrichsen-Rohling et al., 2000;

Sinclair & Frieze, 2005). Third, the more objective criteria frequency and duration of the behaviors received inconsistent empirical support. According to one study a duration of two weeks seems a critical point for a course of harassment to become more dangerous and damaging (Purcell, Pathé, & Mullen, 2004). According to another study higher frequency levels (e.g., five or more behaviors), rather than the duration, can capture more serious forms of stalking (Thompson & Dennison, 2008).

Apart from stalking law criteria, researchers also attempted to differentiate between UPB and stalking by dividing milder types of tactics from more threatening and harmful types of behavior based on factor analyses. However, researchers not yet identified a clear and consistent factor structure of Cupach and Spitzberg's (2004) UPB measure used in our studies (see Dutton & Winstead, 2006). Also, factor analyses with skewed items measured on an ordinal level are less reliable. Moreover, stalking victims' fear is not always related to having experienced threatening or aggressive types of behavior (e.g., Tjaden & Thoennes, 1998).

On the whole, we cannot assure whether our findings also apply to more severe stalking cases because (a) we chiefly captured ordinary forms of relational pursuit and (b) did not discern mild UPBs from severe stalking behaviors following a categorical view. If a dimensional view, based on higher frequency levels (as in Thompson & Dennison, 2008) would hold, then our findings can be generalized to stalking. However, at present it seems too precipitate to assume this. In this respect, studies should further examine whether and how a valid differentiation between the less and more serious forms of UPB needs to be made. Replication of our findings in, for instance clinical or forensic samples of stalkers, would also be an interesting avenue for future research in order to learn more about the wider applicability of our results.

The Statistical Analysis of Unwanted Pursuit Behavior

An often encountered statistical hurdle is that stalking and UPB measures follow non-normal distributions. This is especially the case if—as in this dissertation—such

deviant types of behaviors are assessed in general community samples and if people are asked to report on their own perpetration. Accordingly, we made use of count regression models that appeared to be best suited to analyze skewed counts such as the number of displayed UPBs. Previous studies have regularly used less apt statistical solutions to analyze skewed UPB distributions: for instance, lowering the measurement level from the interval to the ordinal level (e.g., Roberts, 2002) or excluding highly skewed subscales from the analyses (e.g., Dutton-Greene, 2004). As such, the present application of count models can be considered as a strength.

As detailed in our chapters, different types of counts models exist: Poisson and negative binomial regression and zero-inflated or hurdle extensions thereof that fit distributions containing large amounts of zero counts. The zero-inflated models were used in most of our papers. However, in contrast to hurdle models, these models make a less clear split between zero and non-zero counts and are therefore more difficult to interpret (Loeys, Moerkerke, De Smet, & Buysse, 2012). For this reason, we opted for the hurdle models in our last empirical chapter. Also interesting to note is that, as illustrated in our ex-couple paper, count models cannot only be incorporated in the analysis of independent but also in the analysis of multi-leveled data.

We believe that counts models deserve a more widespread use in future stalking and UPB studies, where these models until now (despite the frequently encountered skewed distributions) have only been exceptionally used. Several user-friendly tutorials have been published that aim to guide researchers with the practical implementation of these models (e.g., Atkins & Gallop, 2007; Karaszia & van Dulmen, 2010).

The Studies' Design

An important limiting factor is that longitudinal data were lacking in our research. Although we assumed that breakup, relationship, and individual perpetrator characteristics serve as risk factors impacting on the perpetration of UPBs, caution should be voiced concerning such causal inferences. Strictly speaking, the cross-sectional

research design used in our studies only permits us to interpret the identified effects as associations. Although it seems logic that these characteristics (preceding the perpetration of UPBs) predict later behavior, the results on their interrelatedness with UPB perpetration need to be cautiously interpreted, especially given the retrospective measuring of the variables. Not only our UPB measures, but also several measures of our risk factors may have been susceptible for recall biases and retrospective reinterpretation (especially when one was the target or the actor of post-separation UPBs) and may have consequently disturbed the supposed direction of our findings. Although participants were explicitly instructed that their appraisals should reflect their impressions of, for instance, the *complete* period they had a relationship with their partner before the break or of the *entire* period since the relationship termination, we cannot fully rule out the possibility that the validity of the retrospective ratings was affected.

With regard to these limitations, future longitudinal research seems necessary to suppress he potential biases of retrospective self-reports and to verify the causal direction of our findings. For instance, studies that start with registering characteristics at the time relationships are still intact, over the time that these relationships might come to an end, and during the post-breakup period, might have the suited design to readdress our research questions. Clearly, the practical realization of such prospective studies seems challenging.

Measures

A final limitation relates to the psychometric shortages of some of the measures that we used. For timesaving reasons, a short version of the Marlowe-Crowne Social Desirability Scale (developed by Ballard, 1992) and of the Experience in Close Relationships Scale (developed by Wei, Russell, Mallinckrodt, & Vogel, 2007) was used in Chapters 2 to 4. The first scale consistently proved to be weakly internally consistent, which is assumed to be a general problem of both the full and short versions of the

popular Marlow-Crowne scale (Loo & Loewen, 2004). In contrast, the Lie scale of the Eysenck Personality Questionnaire (Eysenck & Eysenck, 1975), used in our last chapter, exhibited an acceptable degree of internal consistency and thus seems a better alternative to consider in future studies. Similarly, the short scale used to measure respondents' attachment style in their past romantic relationship demonstrated a poor reliability of the avoidant attachment subscale. The full Experience in Close Relationships Scale (used in the last chapter), on the other hand, performed fine.

To measure the perpetration of UPBs, the Pursuer Short Form of the Relational Pursuit scale (Cupach & Spitzberg, 2004) was used in the majority of our studies. This scale's psychometric properties are generally supported: The scale proved to be reliable in our studies and is considered to be content valid because of its unique item format (i.e., the use of cluster items exemplified by an infinite list of specific behaviors) and its representation of major order categories of behaviors derived from one of the most comprehensive and systematic reviews of tactics ever done. One restriction of the scale, however, is that cyber-pursuit tactics are underrepresented as a distinct behavioral category in view of the existing new media to which phenomena such as stalking and unwanted pursuit rapidly adapt (e.g., Reyns, Henson, & Fisher, 2012). In this respect, Cupach and Spitzberg (2004) developed a cyber-pursuit scale that specifically measures pursuit through electronic means (e.g., computer, chat rooms, voice-mail, e-mail,…) for the purpose of establishing an intimate relationship with the target. Thus, in order to learn more about the occurrence of cyber-pursuit, it is recommended that such specific measures are incorporated in future studies.

PRACTICAL IMPLICATIONS

As noted before, UPBs often follow relationship separations and hold the potential to escalate into more severe forms of stalking. Stalking has negative repercussions on pursuers, targets, and their wider social environment (e.g., Spitzberg & Cupach, 2007), yet the distress occasioned by pursuit alone should not be

underestimated (e.g., Cupach & Spitzberg, 2000; Nguyen, Spitzberg, & Lee, 2012). The recognition of post-breakup pursuit and stalking as social problems accordingly calls for early detection and prevention of these behaviors and adequate treatment interventions for victims and perpetrators.

In the early detection and prevention of former partner harassment, divorce professionals (e.g., mediators, judges, divorce counselors, or attorneys), who intervene in the majority of relationship breakups, can have a meaningful task. As pursuit tactics relatively commonly occur among ex-partners and as victims and perpetrators often do not directly come to the attention of formal therapists, these professionals might bear a significant role in a first identification of these behaviors. This implies a certain awareness and vigilance for the existence of UPBs and the risk factors that contribute to a further escalation. Ideally, identification will lead to an adjusted referral to specialist services for assessment and treatment. Also therapists might aid in the early prevention of post-breakup UPBs. For instance, our identification of early markers for post-breakup UPB (i.e., certain dispositional traits and pre-breakup relationship characteristics) can assist marriage counselors to anticipate on these behaviors by promoting a more favorable end of riskful relationship breakdowns. Therapists who work with former partners might further routinely screen for the presence of UPBs, especially given our finding that ex-partners in post-breakup treatment are more liable to pursuing their ex-partner.

Next to prevention, therapists can rely on specific treatment interventions for victims and perpetrators. There is an extensive literature on the management of stalking victims with interventions usually focusing on issues such as documentation of stalking incidents, safety planning, risk assessment, and treatments aimed at reducing psychological distress, self-blame, or self-inefficacy (e.g., Mechanic, 2002). Yet, we only focus on some implications of our findings regarding the treatment of perpetrators. In deriving such clinical implications a cautious stance is warranted as our research mainly captured mild types of UPB and was for the most part conducted in non-clinical

community samples of ex-partners. Nevertheless, this dissertation provides information that might be incorporated in working with perpetrators.

At first, it should be noted that there is a dearth of outcome research on the effectiveness of treatment interventions for stalkers. Consequently, there are no clear evidence-based guidelines for the (voluntary or compulsory) psychological treatment of stalking perpetrators. Usually, treatment is tailored to address the underlying idiosyncratic risk factors of the stalker identified in the course of an overall assessment (e.g., Kamphuis & Emmelkamp, 2000; MacKenzie & James, 2011; Rosenfeld, 2000). Based on our particular findings a *broad* assessment of risk factors—in line with the principles of systemic therapy—is favored. Risk factors related to the individual as well as the breakup context, the past relationship, and the interindividual level deserve attention (at least in more mild UPB cases) and offer different starting points for treatment interventions. This assessment can be backed up with risk assessment instruments such as the Stalking Risk Profile (SRP; MacKenzie et al., 2009). The SRP allows clinicians to identify risk factors relevant for separate motivational groups of stalkers including the *rejected stalkers* whose behaviors arise in the context of a relationship breakdown (see, Mullen, Pathé, & Purcell, 2009).

Depending on which salient risk factors are identified through such assessment efforts, specific interventions can be used to tackle them. Our findings are supportive for psychotherapeutic interventions that address the factors identified in our research. One such intervention, for instance, consists of dealing with grief over the lost relationship and moving persons from an angry preoccupation with the past to the sadness of accepted loss (Mullen, Pathé, & Purcell, 2001; Scholing & Sierksma, 2005). Other interventions operate on the cognitive preoccupation of former intimate stalkers. In this respect, therapists have proposed to use techniques such as imaginary exposure, eye movement desensitization and reprocessing, acceptance and commitment therapy, and mindfulness therapy (Scholing & Sierskma, 2005). Yet, the usefulness of these strategies for stalkers still needs to be tested. In a more indirect manner, our results support psychological interventions targeted at skill deficits concerning conflict resolution and

problems with emotional regulation (MacKenzie & James, 2011). Interventions involving the (re)establishment of social contacts and social roles aimed to enhance one's confidence in finding a new relationship (Mullen et al., 2001), also seem relevant to treat ex-partner pursuit in view of our observations on the role of relationship alternatives and post-breakup feelings of loneliness. Experimental evidence furthermore showed that focusing on new relationship options is helpful to let anxiously attached individuals go of their ex-partner (Spielmann, MacDonald, & Wilson, 2009). As we found that borderline traits underlie more frequent pursuit behavior perpetrations, the use of dialectal behavior therapy (DBT; Linehan, 1993) also seems a promising option to reduce stalking or pursuit tactics. This technique is developed for working with individuals with borderline characteristics and is by far the only intervention whose efficacy in treating stalking offenders received empirical support (Rosenfeld et al., 2007). DBT is a cognitive-behavioral treatment approach that involves the development of behavioral control and the teaching of behavioral skills within four modules: mindfulness skills, distress tolerance, emotion regulation, and interpersonal effectiveness. In the most serious cases, however, effective control will be best achieved by coordinated multidisciplinary responses in which such psychological interventions are combined with psychiatric and legal interferences (e.g., MacKenzie & James, 2011; Meloy, 1998).

As explained in the previous paragraph, our results thus seem to approve the use of certain existing treatment techniques. In addition, we believe that the more complex interactions and interindividual effects found in our research might polish up some existing psychotherapeutic interventions or provide input for new intervention strategies. Our observations that, for instance, anxiously attached partners do not perpetrate more UPBs when they initiated the breakup themselves or that borderline traits do not predict pursuit among perpetrators who separated from a partner of the same-gender, seem relevant elements to account for when treatment decisions are made.

CONCLUSION

The present dissertation examined unwanted pursuit behavior after breakup. Our research endeavored to further present insights in the if, how, and why previous romantic partners can be become entangled in sinister extensions of love. Overall, a substantial group of Flemish ex-partners was found to pursue their former partner in an unwanted way. Their behaviors ranged from relatively normal, mild patterns of pursuit, which we observed in the majority of cases, to more obsessive, severe attempts to reestablish the lost intimate relationship. A complex cocktail of factors was found to explain why persons shift on this continuum of unwanted pursuit. Persons' individual characteristics, as well as their breakup and relationship experiences seemed to be important ingredients. The fact that breakup and relationship characteristics were found to act upon one another, that certain relationship variables offered new interindividual explanations, and that associations differed depending on the participants' gender and gender of their ex-partner further complicated the recipe behind former partner pursuit.

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NEDERLANDSTALIGE SAMENVATTING

THEORETISCHE EN EMPIRISCHE ACHTERGROND

Conceptualisatie van Stalking en Ongewenst Intrusief Gedrag

Hoewel stalking een oud gedrag is dat waarschijnlijk altijd bestaan heeft in onze samenleving, is het een relatief nieuwe misdaad (Meloy, 1999). Stalking wordt vaak omschreven als een "misdaad van de jaren negentig" (Goode, 1995, p. 21). Ongeveer twee decennia geleden begon immers de maatschappelijke, juridische en wetenschappelijke belangstelling in het fenomeen wereldwijd exponentieel toe te nemen. Nadat in 1990 de eerste anti-stalkingswet in Californië ontwikkeld werd, brak de strafbaarstelling van stalking in sneltempo internationaal door. Heden ten dage is stalking een misdrijf in alle Verenigde Staten van Amerika, Australië, Canada en verschillende Europese landen (De Fazio, 2009; Smartt, 2001) waaronder België, waar stalking sinds 1998 strafbaar is (cf., de Belgische belagingswet). Onder meer door de moeilijk te omlijnen aard van het fenomeen stalking, verschillen de ontwikkelde juridische alsook gedragswetenschappelijke stalkingsdefinities van mekaar (Sheridan, Blaauw, & Davies, 2003). Toch wijzen de diverse definities op enkele globale karakteristieken die toelaten stalking te omschrijven als een "(a) een intentioneel (b) patroon van herhaalde gedragingen, gericht tegen een specifieke persoon of personen (c) die ongewenst zijn en (d) resulteren in angst of die een redelijke persoon (of jury) zou zien als beangstigend of bedreigend" (Spitzberg & Cupach, 2007, p. 66).

De observatie dat stalking veelal voorkomt in een relationele context resulteerde in een groeiende relationele conceptualisatie van stalking vanaf de late jaren negentig (Spitzberg & Cupach, 2003). Meerbepaald werden een aantal stalkingsgerelateerde concepten geïntroduceerd, zoals *obsessive relational intrusion* (Cupach & Spitzberg, 1998) en *unwanted pursuit behavior* (Langhinrichsen-Rohling, Palarea, Cohen, & Rohling, 2000), die verwijzen naar een verschijnsel dat wijder verspreid is dan stalking, met name

het ongewenst achternazitten van een intieme of romantische relatie. In het huidige proefschrift wordt hieraan gerefereerd met de term *ongewenst intrusief gedrag* (OIG). OIG wordt door onderzoekers gedefinieerd als "het herhaaldelijk en ongewenst achternazitten en schenden van iemands gevoel van fysieke of symbolische privacy door een ander persoon, een vreemde of een verwante, die naar een intieme relatie verlangt en/of deze veronderstelt" (Cupach & Spitzberg, 1998, pp. 234-235) of als "activiteiten die bestaan uit het aanhoudend en ongewenst achternazitten van een romantische relatie tussen individuen die niet betrokken zijn in een consensuele romantische relatie met elkaar" (Langhinrichsen-Rohling et al., 2000, p. 73). Er zijn twee belangrijke verschillen in de definities van stalking en OIG. Ten eerste bestaat de motivatie van OIG uit het nastreven van een relatie of intimiteit met het slachtoffer, terwijl stalking niet noodzakelijk uit dergelijke motieven voortvloeit. Stalking kan namelijk ook gemotiveerd zijn door bijvoorbeeld haat of het nemen van wraak. Ten tweede is stalking beangstigend of bedreigend voor het slachtoffer, terwijl OIG veelal frustrerend of vervelend is maar niet noodzakelijk angst of bedreiging induceert (Cupach & Spitzberg, 1998, 2004; Spitzberg & Cupach, 2003, 2007). OIG verwijst dan ook naar een ruimer continuüm van mild tot ernstig intrusief gedrag waarbij stalking beschouwd wordt als een ernstige vorm van OIG (Cupach & Spitzberg, 1998).

Meer specifiek omvat het continuüm van OIG activiteiten zoals (a) overdreven hofmakend gedrag (bv., grote en ongevraagde gunsten doen voor het slachtoffer), (b) ongewenste communicatie via technologieën (bv., ongewenste e-mail of voicemail berichten sturen; in meer extreme vorm *cyberstalking* genoemd), (c) het zoeken van face-to-face contact (bv., het slachtoffer fysiek benaderen), (d) stiekem pogen informatie te verzamelen over het slachtoffer (bv., door hem/haar te achtervolgen), (e) persoonlijk en wettelijk grensoverschrijdend gedrag (bv., binnendringen in het huis van het slachtoffer), (f) gedrag bedoeld om het slachtoffer te kwellen of intimideren (bv., de reputatie van het slachtoffer schade toebrengen), (g) bedreigingen uiten (bv., ermee dreigen zichzelf iets aan te doen) en (h) fysieke agressie en geweld (bv., het slachtoffer

fysiek pijn doen; voor meta-analyse, zie Cupach & Spitzberg, 2004; Spitzberg & Cupach, 2007).

Voorkomen en Gevolgen van Stalking en Ongewenst Intrusief Gedrag na Scheiding

Studies die peilen naar het voorkomen van stalking vinden consistent dat ex-partners de belangrijkste groep stalkers zijn. Bijvoorbeeld stelde een recente meta-analyse (Spitzberg, Cupach, & Ciceraro, 2010) vast dat maar liefst bijna de helft van alle gevallen van stalking (44%) zich voordoen na afloop van een romantische relatie. Studies die, specifiek bij ex-partners, het voorkomen van de ruime waaier aan OIG'en in kaart hebben gebracht, hebben bovendien aangetoond dat vele ex-partners milde vormen van OIG vertonen ten aanzien van hun vroegere partner met als doel de intieme relatie te herstellen. Meerbepaald vond men in steekproeven van gescheiden studenten dat tussen de 40% (Davis, Ace, & Andra, 2000) en 97% (Williams & Frieze, 2005; Wisternoff, 2008) van deze studenten minstens één OIG stelde na scheiding. Men observeerde vooral mild intrusieve gedragingen die doorgaans in relatief lage frequenties gesteld werden. Deze studies toonden echter ook aan dat deze milde vormen van OIG in sommige gevallen uitmonden in het meer frequent gaan stellen van deze gedragingen en/of het gebruik van meer indringende gedragingen die beschouwd zouden kunnen worden als stalking. Het risico dat milde vormen van OIG escaleren in gewelddadige en hardnekkig repeterende stalking episodes is bovendien aanzienlijk hoger bij ex-partners (voor meta-analyse, zie McEwan, Mullen, & Purcell, 2007).

Bovenop het verhoogde voorkomen van stalking en OIG bij ex-partners, heeft ex-partnerstalking schadelijke effecten op de psychosociale gezondheid van slachtoffers (Kamphuis, Emmelkamp, & Bartak, 2003). Ook ervaren slachtoffers van ex-partnerstalking meer psychologische, fysieke en sociale gevolgen van het gedrag dan slachtoffers die eerder geen intieme relatie hadden met de pleger (Sheridan & Lyndon, 2012). Stalking beïnvloedt doorgaans niet alleen het slachtoffer zelf, maar ook de sociale netwerken verbonden met het slachtoffer (bv., vrienden en familie van het slachtoffer

die negatieve gevolgen ervaren) en de ruimere samenleving waarin het slachtoffer leeft (bv., de financiële kosten die stalking heeft voor de gezondheidszorg; Spitzberg & Cupach, 2007). Ook stalkers zelf ervaren vaak nadelige psychologische, sociale en wettelijke consequenties van hun gedrag (bv., Mullen, Pathé, & Purcell, 2009). Naast stalking hebben ook ervaringen met het ruimere scala aan OIG'en negatieve consequenties. Bijvoorbeeld zijn meer frequente confrontaties met zowel milde als ernstige gedragingen gecorreleerd met het ervaren van meer negatieve uitkomsten (Nguyn, Spitzberg, & Lee, 2012) en worden relatief milde gedragingen vaak als enigszins bedreigend of beangstigend beleefd (Cupach & Spitzberg, 2000).

SAMENVATTING VAN DE ONDERZOEKSDOELSTELLINGEN

Gebaseerd op het feit dat (a) milde vormen van OIG vaak voorkomen na scheiding, (b) zij een voorbode kunnen zijn voor ernstige vormen van stalking, (c) de gevolgen van ex-partnerstalking en OIG over het algemeen negatief zijn en (d) er zich heden ten dage een groot aantal scheidingen voltrekken, kan er gesteld worden dat OIG na scheiding een significant sociaal probleem is dat nadere onderzoeksaandacht verdient. In dit proefschrift stelden we twee algemene doelstellingen voorop. Een eerste, beschrijvende doelstelling bestond uit het bestuderen van *het voorkomen van OIG bij volwassen ex-partners in Vlaanderen*, wat tot nog toe niet expliciet gebeurde. Een tweede, verklarende doelstelling betrof het uitbreiden van de huidige kennis naar het waarom van deze gedragingen door een grondige analyse uit te voeren van *wat verklaart in welke mate deze gedragingen gesteld worden na scheiding*. Wat betreft deze tweede doelstelling wordt er in de literatuur verwezen naar verschillende types risicofactoren die eerder proximaal dan wel distaal gerelateerd zijn aan het stellen van OIG na scheiding. Deze kunnen gegroepeerd worden in kenmerken van de scheiding op zich, kenmerken van de partnerrelatie voor de breuk en individuele plegerkarakteristieken. Aan de hand van vier, op elkaar voortbouwende, empirische studies wendden we deze variëteit aan risicofactoren aan. We startten met het onderzoeken van proximale

scheidingskenmerken (*Hoofdstuk 2*) waarna we gradueel meer distale partnerrelatiekenmerken (*Hoofdstukken 3 en 4*) en individuele plegerkarakteristieken (*Hoofdstuk 5*) als potentiële risicofactoren voor het stellen van OIG in onze studies betrokken.

In *Hoofdstuk 2* onderzochten we meerbepaald de associatie tussen verschillende scheidingskenmerken en het stellen van OIG na scheiding. In *Hoofdstuk 3* bestudeerden we de rol van partnerrelatiekenmerken in het stellen van OIG na scheiding bovenop en in interactie met significante scheidingskenmerken. In *Hoofdstuk 4* exploreerden we of partnerrelatiekenmerken naast intra- ook interindividuele verklaringen konden bieden voor het stellen van OIG na scheiding. In *Hoofdstuk 5* analyseerden we ten slotte het belang van individuele (klinische, forensische) plegerkarakteristieken naast karakteristieken van de scheiding en de vroegere partnerrelatie in het verklaren van OIG na scheiding, en, onderzochten we bijkomend verschillen in het voorkomen van en de risicofactoren van OIG tussen mannelijke en vrouwelijke ex-partners, ex-partners die scheidden van iemand met hetzelfde of het andere geslacht en ex-partners die al dan niet psychologische begeleiding of behandeling volgden na scheiding.

OVERZICHT VAN DE BELANGRIJKSTE BEVINDINGEN

Bevindingen Betreffende het Voorkomen van Ongewenst Intrusief Gedrag na Scheiding

Doorheen drie van onze studies vonden we consistent dat Vlaamse volwassen ex-partners, in tegenstelling tot meer milde types van OIG, zelden meer bedreigende en fysiek agressieve types van OIG stelden. Gebaseerd op de classificatie van OIG door Cupach en Spitzberg (2004; Spitzberg & Cupach, 2007) bleken de meest voorkomende types gedragingen te bestaan uit ongewenste interacties gericht op het zoeken van face-to-face contact met de ex-partner (i.e., persoonlijk een ongewenst gesprek met de ex-partner aangaan), overdreven hofmakend gedrag (i.e., het overdreven uiten van liefde, het achterlaten van ongewenste liefdesboodschappen) en het stiekem pogen informatie

te verzamelen over de ex-partner (i.e., de ex-partner controleren, de ex-partner in de gaten houden, vrienden vragen om informatie over de ex-partner). Het percentage ex-partners dat minstens één OIG stelde, fluctueerde in onze studies van 17% over 37% tot 68%. Gelijkaardig varieerde het gemiddeld aantal gestelde gedragingen van één, twee à drie, tot vijf à zes gedragingen.

Deze fluctuerende cijfers schenen verband te houden met methodevariaties in onze studies zoals het gebruik van een kortere referentieperiode en minder uitgebreide vragenlijst voor de meting van OIG in één van onze studies. Andere methodevariaties betroffen verschillen tussen onze steekproeven wat betreft hun al dan niet representatief karakter (cf., Nielsen & Einarsen, 2008), wat betreft hoelang deelnemers gemiddeld genomen gescheiden waren en wat betreft hun gemiddelde leeftijd (cf., Ravensberg & Miller, 2003). Volgend op onze vraag of het voorkomen van OIG varieert tussen verschillende groepen ex-partners (cf., Hoofdstuk 5) bleek dat mannelijke en vrouwelijke ex-partners en ex-partners die scheidden van een partner van hetzelfde of het andere geslacht evenveel OIG'en stelden. Daarentegen bleken klinische ex-partners (in psychologische begeleiding of behandeling na scheiding) meer intrusieve gedragingen te hebben gesteld dan hun niet-klinische tegenhangers.

Globaal gezien kan uit ons onderzoek geconcludeerd worden dat een substantieel deel van de Vlaamse ex-partners OIG stelt, bestaande uit voornamelijk milde ongewenste gedragingen die doorgaans in beperkte mate getoond worden. Niettemin observeerden we belangrijke individuele verschillen in de hoeveelheid OIG'en die er gesteld worden. Ook bleek dat, hoewel we voornamelijk mild intrusieve gedragingen registreerden, een kleine groep ex-partners toch ernstig bedreigende en agressieve types van gedrag stellen na hun scheiding. Deze observaties suggereren bijgevolg dat in een beperkte, maar significante groep van ex-partners milde vormen van OIG escaleren in meer persisterende vormen en/of het gebruik van ernstige gedragingen die gekwalificeerd zouden kunnen worden als stalking.

Bevindingen Betreffende Risicofactoren voor Ongewenst Intrusief Gedrag na Scheiding en Theoretische Implicaties

Scheidingskenmerken. Onze data boden een positief antwoord op de vraag of scheidingskenmerken gerelateerd zijn aan het stellen van OIG. De moeilijkheid waarmee ex-partners zich emotioneel en cognitief aanpasten aan de breuk vertoonde een robuuste relatie met het aantal gestelde OIG'en. Meer specifiek vonden we een positief verband tussen OIG en scheidingsgerelateerde gevoelens van eenzaamheid, algemeen negatief affect en cognitief rumineren over de ex-partner. Het effect van rumineren bleek sterker te zijn voor vrouwelijke dan mannelijke ex-partners. De specifieke rol van de ex-partner in het beëindigen van de relatie was eveneens consistent geassocieerd met het plegen van OIG. Personen die de scheiding zelf het meest wouden, stelden een lager aantal OIG'en vergeleken met personen wiens ex-partner de scheiding het meest wou. Ook vonden we een tendens tot het stellen van minder OIG'en in het geval dat beide ex-partners de scheiding evenveel wouden. Verder vonden we partiële evidentie voor het feit dat ex-partners die de oorzaak van de scheiding sterker attribueren aan hun ex-partner of aan externe factoren meer OIG'en stellen. Tot slot verklaarden bepaalde redenen voor de scheiding, zijnde het niet vervullen van gezinstaken door de andere ex-partner, waarom personen meer OIG'en stelden. De aanwezigheid van eigen ontrouw als reden voor de breuk, reduceerde dan weer het aantal gestelde gedragingen.

Op theoretisch vlak wijzen deze resultaten op het belang van het betrekken van contextgebonden factoren als determinanten van OIG naast bijvoorbeeld pathologische of afwijkende plegerkarakteristieken die vanuit een traditionele klinische/forensische visie op stalking (bv., Meloy, 1998) tot nu toe overwegend belicht zijn geweest. Verder bieden de sterke associaties die we vonden tussen het emotioneel/cognitief welzijn van ex-partners en het stellen van OIG ondersteuning voor (delen van) de *relational goal pursuit* theorie (Cupach & Spitzberg, 2004) die de rol van negatief affect en rumineren centraal stelt in de ontwikkeling van OIG. Het feit dat het ongewenst achternazitten van de verloren partner voor een groot deel een gedragsmatige manifestatie lijkt te zijn van

het zich niet kunnen aanpassen aan de scheiding, zou ook kunnen impliceren dat het (eerder pre-theoretische) onderzoeksveld betreffende stalking en OIG kan profiteren van de theoretische inzichten verworven in de ruime literatuur rond de gevolgen van scheiding voor volwassenen.

Partnerrelatiekenmerken. Diverse kenmerken van de verbroken relatie werden in dit proefschrift onder de loep genomen ter verklaring van OIG. Ten eerste vonden we dat meer conflictueuze partnerrelaties tot meer OIG'en leidden na scheiding. Enerzijds stelden we vast dat de mate van relationeel conflict zoals gerapporteerd door de pleger verband hield met zijn/haar gestelde OIG'en. Anderzijds bleek de mate van conflict zoals gerapporteerd door de andere ex-partner, eerder dan door de pleger, de hoeveelheid OIG'en gesteld door de pleger te verklaren.

Ten tweede vonden we dat ex-partners die meer angstig gehecht waren in hun voorbije relatie een hoger aantal OIG'en stelden wanneer de relatie verbroken werd. De negatieve impact van angstige hechting op OIG gold echter niet voor ex-partners die de scheiding zelf initieerden of die scheidden van een partner van hetzelfde geslacht. Ook vonden we interpersoonlijke effecten van angstige hechting terug die erop wezen dat het stellen van OIG niet alleen door eigenschappen van de pleger maar ook door eigenschappen van diens ex-partner wordt beïnvloed. Met name stelden vrouwen meer OIG'en indien ze scheidden van een meer angstig gehechte man, terwijl mannen minder OIG'en stelden indien ze scheidden van een meer angstig gehechte vrouw. De combinatie van twee hoog angstige partners zorgde verder voor meer OIG'en bij vrouwelijke ex-partners. De combinatie van een hoog angstige persoon met een laag angstige partner leidde, zowel bij mannen en vrouwen, tot een sterke toename in de gestelde OIG'en. De mate waarin men vermijdend gehecht of empathisch was in de relatie kon niet verklaren hoeveel OIG'en men stelde na scheiding.

Ten derde vonden we (behalve een positief effect van investeringen in de voorbije relatie op het stellen van OIG bij scheiding) doorgaans geen hoofdeffecten van de *investment model* variabelen betrokken in dit proefschrift (i.e., de mate van

tevredenheid, investeringen en kwaliteit van alternatieven in de relatie voor de breuk; Rusbult, 1980; Rusbult, Martz, & Agnew, 1998). Niettemin vonden we verschillende interactie-effecten die erop wezen dat deze variabelen weldegelijk met meer OIG'en na scheiding samenhangen, maar dan wel onder bepaalde omstandigheden. Meerbepaald bleek het hebben van een lagere kwaliteit van relatiealternatieven te resulteren in meer OIG'en maar dit was enkel zo bij mannelijke ex-partners, bij personen wiens ex-partner de scheiding initieerde of bij personen die zich emotioneel moeilijk konden aanpassen aan de scheiding. Eveneens zetten een hogere mate van tevredenheid en investeringen in de relatie voor de breuk ex-partners aan tot het stellen van meer OIG'en maar enkel indien de andere partner (of, in mindere mate, beide ex-partners) de scheiding initieerde. Ten slotte vonden we nog enkele interpersoonlijke verklaringen voor OIG terug. Met name stelden mannen minder OIG'en ten aanzien van hun ex-vrouw wanneer de vrouw meer tevreden was met de relatie en, omgekeerd, stelden vrouwen meer OIG'en ten aanzien van hun ex-man wanneer deze man een hogere relatietevredenheid ervoer. Met betrekking tot relatiealternatieven vonden we dat de negatieve associatie tussen alternatieven en het stellen van OIG bij mannen versterkt werd door het scheiden van een vrouw met meer alternatieven. De positieve associatie tussen alternatieven en het stellen van OIG bij vrouwen bleek sterker te zijn bij het scheiden van een man met minder alternatieven.

Inzake theorievorming, wijzen deze resultaten aldus op het bestaan van complexe associaties tussen partnerrelatiekenmerken en het voorkomen van OIG. Ten eerste lijkt de invloed van distale relatiekenmerken af te hangen van specifieke proximale scheidingsomstandigheden (vnl. wie de scheiding initieert). Ten tweede werden enkele vernieuwende interpersoonlijke effecten geobserveerd die onderstrepen dat OIG een relationeel, interafhankelijk fenomeen is dat voorbijgaat aan het individu van de pleger alleen. Ten derde maakten de differentiële effecten naargelang het geslacht van de pleger en diens ex-partner de geobserveerde associaties nog gecompliceerder. De rol van geslacht is in theoretische verklaringsmodellen van stalking en OIG grotendeels genegeerd geweest, maar lijkt meer theoretische beschouwing te verdienen (zie ook,

Langhinrichsen-Rohling, 2012). Tot slot demonstreren onze resultaten dat zowel de hechtingstheorie als de investment model theorie relevante verklaringsmodellen zijn in de context van OIG. De hierboven toegelichte complexe associaties die we observeerden tussen componenten van deze theorieën en het stellen van OIG, dragen bij aan een verdere verfijning van de toepassingsmogelijkheden van deze theorieën in het verklaren van OIG.

Individuele plegerkarakteristieken. Bovenop scheidings- en relatiekenmerken waren ook bepaalde individuele karakteristieken van de pleger gerelateerd aan het stellen van OIG. Personen die vroeger meer delinquente of normoverschrijdende gedragingen hadden gesteld en meer borderline persoonlijkheidstrekken vertoonden, pleegden namelijk meer OIG'en ten aanzien van hun ex-partner. Het effect van borderlinetrekken ging echter niet op voor mensen die scheidden van een partner van hetzelfde geslacht. Narcistische en antisociale persoonlijkheidstrekken verklaarden de mate waarin OIG'en gesteld werden niet.

Deze resultaten impliceren dat het traditionele klinische/forensische perspectief op stalking (bv., Meloy, 1998) ook van betekenis is voor het verklaren van milde vormen van OIG in niet-klinische/forensische steekproeven van ex-partners. Dit perspectief lijkt een relationele en contextuele visie op het fenomeen aan te vullen.

Uit ons onderzoek kan globaal gezien geconcludeerd worden dat risicofactoren gerelateerd aan de scheiding (vnl. wie de scheiding initieert en de psychologische aanpassing aan de scheiding), risicofactoren gerelateerd aan de partnerrelatie (relationeel conflict, angstige hechting en de investment model componenten waarbij beide laatste OIG vnl. via meer complexe interactie-effecten beïnvloedden) én klinische/forensische risicofactoren gerelateerd aan de pleger (eerder normoverschrijdend gedrag en borderlinetrekken) OIG verklaren. Bijgevolg pleit ons onderzoek voor de ontwikkeling van theorieën die het stellen van OIG na scheiding benaderen vanuit een integratief, multidimensioneel perspectief dat risicofactoren op

verschillende niveaus in rekening brengt. Naast het focussen op een ruim scala predictoren, lijkt het daarbij ook zinvol om de relatieve sterkte van predictoren in het verklaren van OIG verder te bepalen, alsook om rekening te houden met de meer complexe associaties die predictoren kunnen hebben met OIG.

METHODOLOGISCHE BESCHOUWINGEN EN RICHTINGEN VOOR TOEKOMSTIG ONDERZOEK

Op methodologisch vlak leverden onze studies een bijdrage aan het bestaand onderzoek door gebruik te maken van steekproeven van volwassen ex-partners in Vlaanderen aangezien vorig onderzoek voornamelijk plaatsvond bij steekproeven van gescheiden studenten in niet Europese, Angelsaksische landen (bv., Spitzberg & Cupach, 2007). De bevindingen verkregen bij studenten die een relatiebreuk meemaakten, zijn vermoedelijk slechts in beperkte mate toepasbaar op volwassen ex-partners. Dit lijkt zo te zijn omdat de ervaringen met en motieven voor OIG en stalking verschillen tussen jongeren en volwassenen (bv., Evans & Meloy, 2011; Ravensberg & Miller, 2003) en omdat scheidingen bij volwassen doorgaans van een meer complexe aard zijn. In die optiek lijkt meer onderzoek bij volwassen ex-partners dan ook aangewezen. Om te achterhalen of onderzoeksbevindingen generaliseren naar verschillende landen en culturen, geloven we verder dat het relevant is om meer te weten te komen over mogelijke culturele verschillen in stalking en OIG. Tot op heden is er nog erg weinig onderzoek verricht naar intrusief gedrag binnen verschillende culturen (bv., Jagessar & Sheridan, 2004).

Aangezien voorgaand onderzoek exclusief steekproeven van individuele ex-partners bestudeerde, durven we te stellen dat de inclusie van een ex-koppelsteekproef in één van onze studies een bijdrage levert aan de bestaande literatuur. De resultaten verkregen in onze ex-koppelstudie demonstreerden dat karakteristieken van beide ex-partners een rol spelen in het voorkomen van OIG. Bijgevolg lijkt het uitvoeren van meer dyadische studies een interessante piste te zijn voor toekomstig onderzoek.

Hoewel het onderzoek naar stalking en OIG veelal slachtofferstudies betreffen, werd OIG in het huidige werk onderzocht vanuit het perspectief van de pleger. Aangezien we in staat waren om vrij substantiële niveaus van OIG te registreren en deze adequaat te verklaren, ondersteunt ons onderzoek anonieme zelfrapportage als een bruikbare techniek om het stellen van OIG mee te onderzoeken. Niettemin kunnen we niet ontkennen dat onze zelfrapportages waarschijnlijk onderhevig waren aan onderrapportage (zie ook, Cupach & Spitzberg, 2004; Dutton & Winstead, 2006; Sinclair & Frieze, 2005), wat tevens gesuggereerd werd door het negatief effect van sociale wenselijkheid dat we observeerden. In dit opzicht lijkt het dan ook interessant om in de toekomst te onderzoeken of bevindingen cross-valideren wanneer meerdere informanten worden gebruikt. Studies die bij beide leden van de dyade informatie verzamelen over het gedrag dat zowel zijzelf als hun ex-partner stelde, lijken in dit verband veel mogelijkheden te bieden.

Omwille van verschillende redenen toegelicht in de algemene discussiesectie hanteerden we een dimensionele visie op OIG en maakten we geen categoriale indeling tussen meer milde vormen van OIG enerzijds en meer ernstige vormen van OIG die als stalking beschouwd zouden kunnen worden anderzijds. Omdat we een dergelijk onderscheid niet maakten (en omdat we hoofdzakelijk milde vormen van intrusief gedrag registreerden) kunnen we ons niet vergewissen van het feit of onze bevindingen ook opgaan voor ernstige gevallen van stalking. Bijgevolg kan het interessant zijn om, bijvoorbeeld bij klinische/forensische steekproeven van ex-partnerstalkers, de ruimere toepasselijkheid van onze bevindingen na te gaan. Ook lijkt het zinvol dat er verder onderzoek gebeurt naar of en hoe een valide onderscheid tussen minder en meer ernstige vormen van OIG dient te gebeuren.

In onze studies gebruikten we geavanceerde statistische modellen (zgn. *count regressies*) om de scheve frequentieverdelingen van het aantal gestelde OIG'en accuraat te kunnen analyseren. In vorig onderzoek werden vaak minder gepaste statistische oplossingen aangewend bij het omgaan met dergelijke niet-normaalverdelingen. We

menen dan ook dat count modellen een meer verspreid gebruik verdienen in verdere studies naar OIG en stalking.

Tot slot willen we beklemtonen dat er omzichtig omgesprongen moet worden met de veronderstelling dat scheidings-, relatie- en individuele plegerkenmerken oorzakelijke factoren zijn voor het stellen van later OIG na scheiding. De cross-sectionele aard van onze studies laat geen causale uitspraken toe. Bovendien kunnen de retrospectieve metingen van onze determinanten (die mogelijks gevoelig waren aan herinneringsbias en retrospectieve herinterpretatie) de veronderstelde richting van onze verbanden verstoord hebben. Met betrekking tot deze beperkingen lijkt toekomstig longitudinaal onderzoek onontbeerlijk om de nadelen van retrospectieve zelfrapportage op te vangen en om de veronderstelde causale richting van onze bevindingen te verifiëren.

IMPLICATIES VOOR DE PRAKTIJK

Onze bevindingen omtrent het voorkomen van OIG na scheiding onderstrepen het belang van een vroege detectie en preventie van deze gedragingen in de praktijk. Op dit punt menen we dat er voor scheidingsprofessionals (bv., scheidingsbemiddelaars, -advocaten, -rechters), die in het merendeel van de scheidingen tussenkomen, een betekenisvolle taak is weggelegd. Zij kunnen een significante rol spelen in de eerste identificatie van deze gedragingen (temeer omdat daders en slachtoffers vaak niet meteen onder de aandacht van therapeuten komen). Dit impliceert een zeker bewustzijn van en vigilantie voor het bestaan van deze gedragingen en de risicofactoren die bijdragen aan een verdere escalatie ervan. Identificatie leidt idealiter vervolgens tot een aangepaste doorverwijzing naar gespecialiseerde assessment- en behandelingsdiensten. Ook therapeuten kunnen aan een vroege detectie en preventie van OIG bijdragen. Bijvoorbeeld kan onze identificatie van vroege markers voor OIG na scheiding (bv., partnerrelatiekenmerken of meer dispositionele plegerkarakteristieken) relatietherapeuten helpen te anticiperen op OIG door aan een gunstiger verloop van

potentieel risicovolle scheidingen te werken. Globaler gezien kunnen therapeuten die met ex-partners werken eventueel routinematiger gaan peilen naar de aanwezigheid van deze gedragingen, vooral omdat we vonden dat ex-partners die in begeleiding of behandeling zijn meer OIG'en stellen.

Onze resultaten aangaande risicofactoren voor OIG lijken verder ook enkele implicaties te hebben voor dadertherapie. In de literatuur is er een opvallend gebrek aan zogenaamde *evidence-based richtlijnen* voor de behandeling van plegers. De inhoud van dadertherapie is doorgaans maatwerk dat inspeelt op het idiosyncratische risicoprofiel van de pleger dat doorheen een grondige assessment wordt vastgesteld (bv., Kamphuis & Emmelkamp, 2000; Mackenzie & James, 2011; Rosenfeld, 2000). Onze bevindingen wijzen op het belang van een uitgebreide assessment waarin risicofactoren gerelateerd aan het individu van de pleger, aan de voorbije relatie, aan de scheidingscontext en op interindividueel niveau aandacht kunnen krijgen en verschillende ingangen kunnen bieden voor de eigenlijke behandeling. Verder ondersteunen onze bevindingen bepaalde psychotherapeutische interventies die ingrijpen op de risicofactoren die we in ons onderzoek vaststelden. Dit betreft bijvoorbeeld interventies die gericht zijn op het aanvaarden van de relatiebreuk en het omgaan met het leed omtrent de verloren relatie (Mullen, Pathé, & Purcell, 2001; Scholing & Sierksma, 2005), op de cognitieve preoccupatie van de pleger met de verloren partner (Scholing & Sierksma, 2005), op vaardigheidstekorten wat betreft conflictoplossing en emotieregulatie (MacKenzie & James, 2011), op het bevorderen van het vertrouwen in het kunnen aangaan van een nieuwe relatie (Mullen et al., 2000) of op het behandelen van borderline karakteristieken (bv., aan de hand van dialectische gedragstherapie; Linehan, 1993; Rosenfeld et al., 2007). Tot slot kunnen de meer complexe interactie-effecten en interpersoonlijke, dyadische effecten die we vaststelden in ons onderzoek input bieden voor de ontwikkeling van nieuwe interventies of bestaande interventies bijsturen of verfijnen.

CONCLUSIE

Het huidige werk betrof een onderzoek naar OIG na scheiding. Het had als doel bestaande inzichten te verruimen omtrent het of, hoe en waarom partners verstrikt kunnen geraken in de meer duistere consequenties van liefde. We vonden dat een substantieel deel van de ex-partners in Vlaanderen hun vorige partner ongewenst achternazaten. Hun gedrag varieerde van relatief normale en milde vormen van OIG, die we in de meerderheid van de gevallen observeerden, tot meer obsessieve en ernstige pogingen om de verloren intieme relatie te herstellen. Een complexe cocktail van factoren verklaarde waarom ex-partners verschoven op dit continuüm van OIG. Bepaalde individuele karakteristieken, scheidings- en relatiekenmerken leken belangrijke ingrediënten te zijn. Onze observaties dat scheidings- en relatiekenmerken op elkaar inwerkten, dat er bepaalde interpersoonlijke dynamieken speelden en dat bepaalde associaties verschilden naargelang het geslacht van de persoon en diens ex-partner maakten het recept van OIG na scheiding nog gecompliceerder.

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