Pick me up: Ego depletion and receptivity to relationship initiation

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Abstract

The success of a relationship initiation strategy, such as a pick-up line or opening gambit, may depend on the target's state receptivity. Self-control is a limited resource that, when depleted, can potentially influence interpersonal interactions. The present research examines whether ego depletion can influence receptivity to various types of opening gambits. To accomplish this, 99 currently single participants either wrote a story with several restrictions (ego-depletion group) or wrote without restrictions (non-depletion group), and then read direct, innocuous, or cute opening gambits. Following each type of gambit, participants rated their receptivity by indicating how likely they would be to continue to talk to the initiator, view the initiator positively, and give the initiator their phone number. As predicted, analyses revealed that those who participated in the ego-depletion task were significantly less receptive to cute opening gambits and there was a trend of being more receptive to innocuous opening gambits, relative to the non-depletion group. Ego depletion did not influence direct gambits.

Keywords

Self-regulation, relationship initiation, impression formation, interpersonal relationships, dating

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When a person approaches a potential romantic partner to start a conversation, the first thing the initiator says can influence whether a relationship begins to form. The ultimate outcome of the conversation also depends on the person and the perception of the initiation attempt. The perceiver's receptivity may vary depending on how much energy the perceiver has to follow the conversation and decipher the initiator's intentions. That energy level can vary based on how demanding the perceiver's day has been, what the perceiver was doing prior to the conversation, environmental factors, and social scripts or roles. In fact, people have a limited ability to exert self-control. When capacity for self-control diminishes it can influence subsequent thoughts and behaviors (Baumeister, Bratslavsky, Muraven, & Tice, 1998). The present study examines how an experimentally induced reduction in the ability to exert self-control influences receptivity to relationship initiation strategies.

Relationship initiation

Research on the process by which individuals begin a relationship, or relationship initiation, has focused on deciding to initiate, self-presentation techniques in initiation, and how personal relationship goals determine desirable traits in the initiator, as well as how these initial encounters progress over time (see Bredow, Cate, & Huston, 2008, for a recent review). One area of research focuses on strategies individuals use to start conversation with a potential partner, known as opening lines or opening gambits (Cunningham & Barbee, 2008).

Researchers identified different types of gambits through factor analysis of 100 gambits from a myriad of sources and gathered participants' self-reports of effectiveness (Kleinke, Meeker, & Staneski, 1986). The three main categories were direct gambits (e.g., "I'm sort of shy, but I'd like to get to know you"), innocuous gambits, which mask initial interest (e.g., "Hi"), and cute-flippant gambits (e.g., "I'm easy. Are you?"). Self-report measures revealed that men and women both agreed that cute-flippant lines were the least desirable. However, gender influenced preferences for direct and innocuous gambits. Women preferred innocuous lines and had a greater aversion to cute-flippant opening gambits. In fact, females' perceived males who used cute-flippant gambits as less trustworthy and less intelligent (Senko & Fyffe, 2010). Men, however, had a greater preference for direct opening gambits (Kleinke et al., 1986). Some specific qualities of gambits also play a role in interpersonal perceptions. For example, participants reported the willingness of a female depicted in a vignette to continue a conversation after a male, who was described as wealthy or generous, used various opening gambits on her (Bale, Morrison, & Caryl, 2006).

Research has replicated self-reported preferences for opening gambits in a naturalistic bar setting (Cunningham, 1989). Across two studies, college student confederates of medium attractiveness approached patrons of a bar and delivered an opening gambit. Gambits were taken from Kleinke et al.'s (1986) three gambit types: direct, innocuous, or cute. The results confirmed the previous finding that females were least receptive to cute opening gambits, and were more receptive to innocuous or direct gambits. Overall, males were more receptive to gambits than females and males' receptivity did not vary by gambit type. A separate lab study also showed that male and female participants

perceived those who used innocuous lines as brighter and sexier than those who used cute lines (Study 3, Cunningham, 1989).

Other individual differences may influence the perceiver's receptivity to an opening gambit. For example, when rating vignettes about whether a woman would continue a conversation, the extroversion of the male and female perceiver correlated (positively for females, negatively for males) with receptivity to humorous lines (Cooper, O'Donnell, Caryl, Morrison, & Bale, 2007). Researchers have also speculated that an individual's attachment style influences how that person builds connections during initial encounters (Shaver & Mikulincer, 2006). For example, those with an avoidant attachment style have a difficult time trusting others and tend to see potential partners as more untrustworthy than secure individuals who self-disclose more initially (Mikulincer & Horesh, 1999). In each case, characteristics of the perceiver influence receptivity and ultimately the effectiveness of the opening gambit.

Temporal factors, such as mating strategy or an individual's orientation toward short-term "hook-ups" versus long-term committed relationships, may also influence relationship initiation (Cunningham & Barbee, 2008). Those with a long-term strategy use supportive and honest strategies, while those with a short-term strategy use manipulative and dishonest strategies. Participants also preferred males using direct or innocuous gambits, versus cute gambits, when considering a long-term mate.

Yet, there is little research on how the immediate state of the perceiver influences the perceiver's receptivity to relationship initiation. Although not involving opening gambits, research involving women's fertility within the menstrual cycle found that fertile women prefer competitive males, while women in infertile stages prefer a more stereotypical "nice guy" (Gangestad, Garver-Apgar, Simpson, & Cousins, 2007). This research suggests that there are situational factors that may influence the relationship initiation process. Still, we know little about how immediate situational factors influence the target's receptivity to opening gambits.

Self-regulation/ego depletion

The state level of regulatory control is a situational factor that seems especially likely to influence receptiveness. Self-regulation refers to one's ability to exert executive function over impulses, feelings, thoughts, and behavior (Baumeister et al., 1998). The limited resource model of self-regulation proposes self-regulation works like a muscle becoming fatigued after strenuous activity. After engaging in tasks involving self-control, such as emotion regulation (Vohs & Heatherton, 2000), decision making (Vohs et al., 2008), and information processing (Schmeichel, Vohs, & Baumeister, 2003), later acts of self-control were impaired. Lowered self-regulation also leads to more impulsive behavior (Muraven, Collins, & Neinhaus, 2002; Vohs & Faber, 2007; Vohs & Heatherton, 2000). Like other types of strength, self-regulatory or ego strength can become depleted from experiences throughout the day, or in response to a specific situation or task.

Self-regulation plays an important role in interpersonal relations, especially in the realm of impulse control. For example, insufficient self-regulatory resources make it difficult to resist the impulse to acquiesce to others' attempts at influencing one's behavior (Vohs & Ciarocco, 2004). In fact, after a person has experienced ego depletion, later

persuasion attempts were more successful (Knowles & Linn, 2004). In the context of romantic relationships, ego depletion's influence on impulse control and decision making lead to greater infidelity-related behaviors. Depleted individuals in monogamous relationships spent more time looking at attractive potential partners (Vohs & Ciarocco, 2004), self-reported a greater likelihood to commit sexual infidelity (Gailliot & Baumeister, 2007), and were more likely to accept a coffee date from a confederate (Ciarocco, Echevarria, & Lewandowski, 2012).

Self-regulation also impacts interpersonal interactions by influencing information processing. Ego depletion may encourage an individual to make a passive decision (e.g., listening to a boring speech) rather than an active decision (e.g., getting up and walking out of the room to avoid listening to the boring speech), perhaps because the passive decision requires less effort (Baumeister et al., 1998). Passivity can also influence how an individual processes information and makes interpersonal inferences such that, when depleted, individuals are more likely to rely on less effortful methods of inference. For example, when depleted of self-regulation, people make more dispositional attributions than situational attributions (Gilbert, Krull, & Pelham, 1988) and rely more on first impressions (Webster, Richter, & Kruglanski, 1996). If self-regulation can influence how an individual perceives another, the experience of ego depletion has the potential to influence relationship formation and maintenance (Vohs & Ciarocco, 2004).

The present study

Research indicates that low self-control is not conducive to relationship maintenance (Rawn & Vohs, 2006). However, research has yet to examine the role of self-control in relationship initiation. To this point previous research has also not provided a theoretical framework to help explain how situational factors can influence an individual's receptivity to relationship initiation strategies. The present study addresses these needs by examining the role of self-regulation in relationship initiation. We expect receptivity to relationship initiation under regulatory strain will vary based on gambit type.

Self-regulatory resources are crucial to making accurate inferences about others' behavior. Deciphering the initiator's intent and determining the proper reaction requires effort from the perceiver. Regulatory strain results in defaulting to less effortful, passive methods of impression formation (e.g., Gilbert et al., 1988; Webster et al., 1996). Innocuous gambits intend to mask the initiator's interest, making them harder for the target to decipher in a situation where the target has diminished cognitive capacity (Schmeichel, Vohs, & Baumeister, 2003). Therefore, when depleted of self-control, targets will be less guarded and more receptive to innocuous gambits.

In contrast, when using direct gambits the initiator's intention is clear to the intended target and targets generally perceive direct opening gambits positively (Bale et al., 2006; Cunningham, 1989; Kleinke et al., 1986). Therefore, the target's regulatory capacity should influence receptivity less because the clear intent and positive perception of direct gambits makes deciphering the initiator's intent less cognitively demanding.

Likewise, cute opening gambits are also very clear in intent. However, targets regard cute gambits negatively (Bale et al., 2006; Cunningham, 1989; Kleinke et al., 1986). As depletion lowers impulse control (Baumesiter et al., 1998; Vohs & Faber, 2007) and

mood regulation (Vohs & Heatherton, 2000), we expect that depleted individuals will have a more negative reaction and an elevated impulse to shut the relationship initiator down, resulting in less receptivity to cute gambits.

To test this, participants were randomly assigned to an ego-depletion or non-depletion writing task (Schmeichel, 2007), followed by questionnaires assessing receptivity to three types (direct/innocuous/cute) of opening gambits. Due to diminished resources brought about by engaging in self-control during the writing activity, we hypothesized that those who experience ego depletion will be less receptive to cute/flippant gambits and more receptive to innocuous gambits compared to non-depleted individuals.

Method

Participants

Participants were 99 undergraduate students (80 females, 19 males) from a medium-sized private university in the Northeast United States who participated for a class requirement. Ages ranged from 18 to 45 ($M = 19.4$, $SD = 3.05$). Of those indicating ethnicity, 85.9% were Caucasian, 8.1% Hispanic-American, 3.0% African-American, 1.0% Asian-American, and 2.0% Other. Participants were all heterosexual and not currently involved in a romantic relationship.

Design and procedure

The study was a mixed design. We randomly assigned participants to the between-subjects ego depletion condition (depleted and non-depleted), and had participants rate all three types of gambits as a within-subject variable (direct, innocuous, cute).

Following informed consent, participants worked through a task manipulating depletion level. Specifically, they read the following: "In this study I am looking for several different things. The first thing I am going to have you do is a verbal story task. We actually borrowed this task from a standardized intelligence test, so obviously we are trying to measure your intelligence." After the depletion task, participants read and rated several opening gambit measures, and completed demographic measures and a manipulation check.

Ego-depletion manipulation. The depletion task was a five-minute writing task where participants described a recent trip (Schmeichel, 2007).[1] In the depletion condition, we gave participants the following instructions: "The following task is related to intelligence. Please write a story about a recent trip you have taken. It may be a trip to the store, to New York, or to another country – wherever! Please write until the experimenter asks you to stop. Very important! Please do not use the letters A or N anywhere in your story (For example, use 'plus' instead of 'and')." In the non-depletion condition, we gave the following instructions: "Please write a story about a recent trip you have taken. It may be a trip to the store, to New York, or to another country – wherever! Please write until the experimenter asks you to stop." Upon completion of the writing tasks, we gave

participants the within-subjects independent variable questionnaires assessing their responsiveness to opening gambits (direct, innocuous, and cute).

Opening gambits. Participants looked at a picture of an attractive opposite sex person (based on a pilot test of similar participants) and rated how they would respond if this person approached them and initiated conversation using opening gambits that we based on previous research (Cunningham, 1989; Kleinke et al., 1986). We paired the attractive picture with each of the gambits to control, to some degree, for the influence of the initiator's attractiveness and interest in a relationship due to the established connection between these factors and the probability of acceptance to relationship initiations (Shanteau & Nagy, 1979). Participants received all three types of opening gambits in a random order: direct ("I don't normally come up to people like this, but I couldn't resist."), innocuous ("Hi, how are you? My name is____."), and cute ("Excuse me what time is it? I just wanted to be able to remember the exact moment that I met you.").

Receptivity to opening gambits. Following each gambit, participants rated the likelihood that they would " . . . continue talking to them," " . . . view this person positively," "consider giving this person your phone number," " . . . tell this person to leave you alone," (reverse scored) or " . . . ignore this person" (reverse scored) on a six-point Likert scale (1 = Not at all Likely, 6 = Extremely Likely). Alpha in the present study was .85.

Manipulation check. The manipulation check asked, "How difficult did you find writing the story?" Participants then circled a number on a six-point Likert Scale (1 = Not at all Difficult, 6 = Extremely Difficult).

Demographics. The demographics sheet asked participants to give their age, gender, ethnic background, year in college, and current relationship status.

Results

Manipulation check

To determine how effective the writing task was in successfully manipulating the participants' self-control, we conducted a *t*-test of independent means comparing the two conditions. As expected, the manipulation of ego depletion was successful; compared to non-depleted individuals ($M = 1.63$, $SD = .80$), depleted individuals ($M = 5.47$, $SD = .71$) found the writing task much more difficult; $t(97) = -25.18$, $p < .001$.

Receptivity to gambits

We conducted a repeated measures analysis of variance with the mean receptivity to opening gambits as the dependent variable. Ego depletion (depleted, control) and opening gambit type (direct, innocuous, cute) were the independent variables. (Order of gambits was included in the original analysis as a between-subjects factor, but was not

Table 1. Receptivity to opening gambit by ego depletion and gambit type.

	Depletion condition	
Type of gambit	Not depleted	Depleted
Cute	4.15$_a$ (1.24)	3.68$_b$ (1.20)
Innocuous	4.78 (1.04)	5.04 (0.76)
Direct	4.80 (0.81)	4.76 (0.71)

Note. N for each cell (depletion condition = 58, non-depleted condition = 41). The main effect for depletion was not significant (*F* = 0.41). There was a significant main effect for gambit type (*p* < .001) and for the inter-action between depletion and gambit type (*p* = .019). Means in the same row with different subscripts are significantly different.

significant in any of the analyses, and was thus dropped.) Cell and marginal means are shown in Table 1.

The main effect for ego depletion was not significant ($F(1, 97) = 0.41, p = .53$, partial $\eta^2 = .06$), indicating that those in the depletion condition ($M = 4.57, SD = .64$) were similarly receptive to the opening gambits as those in the control condition ($M = 4.49, SD = .62$). Depletion alone did not impact receptivity.

The main effect for gambit type was significant ($F(2, 194) = 33.92, p < .001$, partial $\eta^2 = .51$). A series of post-hoc (Bonferroni) analyses reveals that that individuals were significantly less receptive to opening gambits that were cute ($M = 3.87, SD = 1.24$) compared to either innocuous ($p < .001$) or direct ($p < .001$). The difference in receptivity between innocuous ($M = 4.93, SD = .89$) and direct ($M = 4.77, SD = .75$) opening gambits was not significant ($p = .82$).

As predicted, there was significant interaction between depletion and gambit type ($F(2, 194) = 4.03, p = .019$, partial $\eta^2 = .20$) such that the innocuous and cute conditions had opposite patterns of receptivity to the opening gambits based on the depletion condition. Specifically, compared to non-depleted individuals, depleted individuals were significantly less receptive to cute gambits ($F(1, 97) = 3.65, p = .05$), and there was a weak trend for depleted individuals to be more receptive to innocuous opening gambits, ($F(1, 97) = 2.15, p = .14$). Depletion had little influence on receptivity to direct gambits ($F(1, 97) = .06, p = .81$).

We also examined the simple effect of gambit within each depletion condition. Within the depletion condition, cute gambits were perceived less favorably than innocuous gambits ($t (57) = -7.31, p < .001$) and direct gambits ($t (57) = -7.89, p < .001$). Innocuous gambits were also perceived more favorably than direct gambits ($t (57) = -2.13, p = .03$). Within the non-depletion control condition, cute gambits were perceived less favorably than innocuous gambits ($t (40) = -2.32, p = .02$) and direct gambits ($t (40) = -3.59, p = .001$). Innocuous gambits were not perceived significantly different from direct gambits ($t (40) = .09, p = .92$).

Specific reactions. In addition to the overall mean for receptivity to gambits, we also conducted a parallel repeated measures analysis of variance to determine the influence of depletion condition and gambit type on each of the specific receptivity items. In each

Table 2. Receptivity to opening gambits by gender and gambit type.

	Gender	
Type of gambit	Male	Female
Cute	4.72 (1.05)	3.67 (1.20)
Innocuous	4.56 (1.45)	5.02 (.69)
Direct	5.23 (.83)	4.67 (.69)

Note. N for each cell (males = 19, females = 80). The main effects for gambit type ($p < .001$) and gender ($p = .02$) were significant. The interaction between gambit type and gender was also significant ($p < .001$).

case, the main effect results for the individual items paralleled those of the overall mean, such that there was no main effect for depletion, and the cute gambit was viewed least favorably compared to the direct and innocuous gambits. The interaction between depletion and gambit type for the specific reactions to the opening gambits were: continue talking to the initiator [$F(2, 194) = 3.27, p = .04$, partial $\eta^2 = .18$], view the initiator positively [$F(2, 194) = 2.40, p = .09$, partial $\eta^2 = .15$], give the initiator their phone number [$F(2, 194) = 1.66, p = .19$, partial $\eta^2 = .13$], ask an initiator to leave them alone [$F(2, 194) = 4.99, p = .008$, partial $\eta^2 = .22$], and ignore an initiator [$F(2, 194) = 3.47, p = .03$, partial $\eta^2 = .19$].

For the cute gambit, compared to non-depleted individuals, depleted individuals were significantly less likely to continue talking to an initiator ($F(1, 97) = 5.70, p = .01$), were less likely to view the initiator positively ($F(1, 97) = 5.74, p = .01$), and were less likely to give their phone number to an initiator ($F(1, 97) = 5.74, p = .05$). For the innocuous gambit, compared to non-depleted individuals, depleted individuals were significantly less likely to ask the initiator to leave them alone ($F(1, 97) = 9.32, p = .002$), and were less likely to ignore the initiator ($F(1, 97) = 8.78, p = .002$). Other simple effects failed to reach significance.

Gender. Although not hypothesized, and not the focus of the present study, past research suggests that gender may play a key role in receptivity to opening gambits (Cunningham, 1989; Kleinke et al., 1986). To test this possibility, we repeated the above analysis, but included gender as a between-subjects factor. The main effect for ego depletion remained non-significant; $F(1, 95) = 0.75, p = .39$, partial $\eta^2 = .09$. The gambit type main effect, $F(2, 190) = 11.69, p < .001$, partial $\eta^2 = .33$, and the gambit type by condition interaction, $F(2, 190) = 3.91, p = .02$, partial $\eta^2 = .20$, both remained significant. The main effect for gender was significant, $F(1, 95) = 6.02, p = .02$, partial $\eta^2 = .24$, such that men were more receptive to gambits than women. As shown in Table 2, the interaction between gambit type and gender was also significant ($F(2, 190) = 11.73$, $p < .001$, partial $\eta^2 = .33$). Compared to males, females were significantly less receptive to cute gambits ($F(1, 97) = 12.18, p = .001$), significantly more receptive to innocuous opening gambits ($F(1, 97) = 4.24, p = .02$), and less receptive to direct opening gambits ($F(1, 97) = 9.54, p = .002$). A follow-up analysis focused solely on females revealed that females were significantly more receptive to innocuous gambits than direct gambits

($p < .001$) or cute gambits ($p < .001$), and more receptive to direct gambits than cute gambits ($p < .001$). The three-way interaction between gender, condition, and gambit type was not significant ($F(2, 190) = 0.67$, $p = .51$, partial $\eta^2 = .08$).

Discussion

As hypothesized, depletion's effect on individuals' perception of gambits was opposite for cute and innocuous gambits, such that depleted individuals were less receptive to cute opening gambits than non-depleted individuals. Depleted individuals also exhibited a trend in being more receptive to innocuous opening gambits, but this trend was not significant. Receptivity to direct gambits was unaffected by depletion level. Analyses of specific responses revealed that these differences were largely the result of depleted individuals greater likelihood to "continue talking" to the initiator and decreased likelihood to "ask the initiator to leave them alone" and "ignore the initiator" when the initiator used innocuous gambits.

The present results suggest that immediate situational factors play a role in the effectiveness of opening gambits as a relationship initiation strategy, expanding on previous findings that innocuous gambits were generally more desirable (Kleinke et al., 1986). In the depletion condition, participants were more affected by innocuous gambits in that they were less likely to ask the initiator to leave them alone or to ignore the initiator. Depletion, however, did not significantly affect other responses to innocuous gambits (continue to talk to initiator, view initiator positively, provide their phone number to initiator). By nature these gambits hide intention, necessitating more cognitive effort on the part of the target to successfully interpret the situation. As people tend to engage in behavior that requires less effort when depleted (Baumeister et al., 1998), the regulatory strain can result in passivity and therefore higher receptivity. However, in non-depleted individuals the intent of cute opening gambits is both clear and perceived negatively (Kleinke et al., 1986; Senko & Fyffe, 2010). The depleted participants' lowered impulse control resulted in negative responses to their first impression, which lowered receptivity to these gambits compared to non-depleted participants. Any attempt to be polite or give the relationship initiator the benefit of the doubt may be too effortful.

Subsequent analyses examining the role of gender found that, consistent with past research, men were more receptive to opening gambits overall (Cunningham, 1989; Wade, Butrie, & Hoffman, 2009). Gender also interacted with gambit type in terms of receptivity, such that females were most receptive to the innocuous gambit, and were least receptive to the cute gambit. In contrast, but consistent with recent research, males were least receptive to the innocuous gambit and most receptive to the direct gambit (Wade et al., 2009). Overall, the gender and gambit type findings largely replicate previous work and indicate that females are less responsive to cute opening gambits, potentially because they may seem like overt pick-up attempts.

The present study extends previous work on individual differences by examining how situational factors, such as ego-depletion, influence receptivity to relationship initiation. The present results suggest that ego depletion by itself does not uniformly influence receptivity. Instead, receptivity depends on the type of gambit the initiator uses.

Compared to non-depleted individuals, depleted individuals were less responsive to cute gambits and exhibited a trend toward greater receptivity to innocuous gambits.

Previous work suggests that ego depletion negatively influences decision making (Baumeister, Sparks, Stillman, & Vohs, 2008). One reason for this is that ego depletion leads to an overreliance on initial impressions, because individuals do not have the resources necessary to fully process information (Webster et al., 1996). Specifically, depleted individuals have a decreased ability to engage in higher order cognition (Schmeichel, Vohs, & Baumeister, 2003). Depletion of resources also impairs deliberate processing and encourages the use of mental shortcuts (Pocheptsova, Amir, Dhar, & Baumeister, 2009). The inability to engage in deliberate processing encourages a greater reliance on quick and less effortful reactions (Chaiken & Trope, 1999). Thus, in the context of relationship initiation, opening gambits provide a limited amount of information, and when cognitive resources are scarce individuals may focus on more superficial and easily processed information (Lenton & Francesconi, 2010). Depleted individuals may also be less inclined to weigh competing sources of information, because they have fewer resources available to be vigilant about potential pick-up strategies (Baumeister et al., 1998).

In the present study, the ambiguous nature of innocuous lines should require more effort to decipher the initiator's true intention (e.g., determining whether it is a pick-up attempt or merely an innocent greeting). For example, it is common to start many types of conversations with innocuous gambits like "Hi, how are you?" A depleted perceiver would then have less energy available to respond to the initiation strategy in a more active or effortful manner (e.g., by leaving) and would likely take a less effortful or more passive approach (e.g., continue the conversation). The alternative of ending the conversation also runs the risk of the individual being considered rude or the social embarrassment of misperceiving the initiator's intentions if it was not an authentic pick-up attempt. The present results demonstrate that those in the depleted group were more likely to engage in less effortful behavior, such as continue talking to the initiator, and were less likely to engage in more effortful behavior, such as "ask the initiator to leave them alone." This is consistent with research showing that ego depletion leads to more passive responses (Baumeister et al., 1998).

While innocuous gambits may make the initiator's intention less clear, an initiator who uses a cute gambit has clearer intentions of making an overt pick-up attempt. Targets may view cute gambits negatively because the initiator desires a less serious relationship or is a less desirable partner (Cunningham, 1989). In this context, the less effortful response would be to end the conversation because the initial negative impression of the person using the cute line (Cunningham, 1989) would be very difficult to overcome due to the power of negative information (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). Depletion can also inhibit desirable self-presentations such that in the context of opening gambits, depleted individuals may not have the resources to exhibit tolerance towards obvious pick-up lines and will consequently be less receptive (Vohs, Baumeister, & Ciarocco, 2005). Thus, it ultimately would take the perceiver less effort to end the conversation than it would to continue the conversation in order to determine the initiator's true intentions behind using the cute gambit or to overcome a negative first impression the cute gambit created. Consistent with this interpretation,

those in the depleted group were more likely to "ask the initiator to leave them alone" and "ignore the initiator" in the context of cute gambits.

As a result of their depleted state, individuals may not have the energy to engage in an effortful consideration of mitigating possibilities regarding the initiator's intent. Consistent with prior research, depletion should consistently result in an individual taking the least effortful approach to an interaction (e.g., Schmeichel et al., 2003; Webster et al., 1996). However, the reaction that constitutes the least amount of effort differs based on the type of gambit. Although the initiator's intentions may be singularly focused on starting a romantic relationship, from the perspective of the target, the different types of gambits are reminiscent of very different processes/intentions. That is, when the gambit is cute it is ultimately less effortful to discontinue the interaction, because the initiator's intentions are clear. However, when the gambit is innocuous the initiator's intentions are unclear so it is easier, and requires less cognitive effort, to continue the interaction naturally until the initiator's intentions are more obvious, rather than risk a potentially awkward interaction. This interpretation is consistent with the observed results showing that the innocuous and cute conditions had opposite patterns of receptivity to the opening gambits based on the depletion condition.

It is possible that presenting the depletion task as a measure of intelligence could have threatened participants' intelligence, self-concept, or increased negative emotion. However, we do not believe this could have happened in a systematic way. Importantly, the depletion task and the control task were both novel, and the researcher did not provide feedback regarding participants' performance. As a result, each participant would have no way of knowing how difficult their task was or how their performance compared to others. In the absence of this information, variations in perceptions of the task are random among participants and are equally distributed across groups.

Strengths and limitations

A strength of the present research is the experimental testing of relationship initiation in the context of theoretically derived hypotheses using an established ego-depletion manipulation. One limitation of the present study is that it relies on self-reports of anticipated behavior, rather than actual behavior. However, the present approach of using self-reported perceptions of vignettes is consistent with a great deal of previous work on opening gambits (e.g., Bale et al., 2006; Cooper et al., 2007; Cunningham, 1989; Kleinke et al., 1986; Wade et al., 2009). Existing research on opening gambits in naturalistic settings has focused on more easily manipulated characteristics, such as qualities of the specific opening gambits/ relationship initiation strategies (e.g., Clark & Hatfield, 1989; Cunningham, 1989). Manipulating the perceiver's experience, such as in the case of ego depletion, requires a greater amount of control that would be difficult to obtain given the complexities inherent in an in vivo relationship initiation context. While a field study examining ego depletion and receptivity to gambits would be potentially beneficial, it is worth noting that findings from field studies of opening gambits (e.g., Cunningham, 1989) parallel those using self-report questionnaires (e.g., Kleinke et al., 1986; Wade et al., 2009). In addition, findings are consistent across college and non-college samples (e.g., Cooper et al., 2007; Kleinke et al., 1986).

The present study is also not able to completely rule out the possibility that the pattern of results is due to ego depletion making an individual more inclined to pursue a meaningful connection with another person. In this context, innocuous gambits suggest the potential formation of a meaningful relationship (friendship or romantic), while a cute gambit suggests a more superficial or short-term relationship (Senko & Fyffe, 2010). However, if depletion only related to the desire to form relationships, we should have also observed a difference between depletion conditions for direct gambits.

Future research

The present study represents an important first step in melding the self-regulation and relationship initiation literatures, and suggests many opportunities for future research. For example, research should focus on exploring the potential mediators discussed above regarding participants' perception of the opening gambits. Such research could also incorporate confederates into a speed-dating paradigm as a way of maintaining control while measuring actual behavior (Finkel & Eastwick, 2008). It is also possible that different types of opening gambits can produce varying amounts of anxiety in perceivers and that anxiety levels account for some of the variation in receptivity. Research should examine this in the future due to the established link between ego depletion and increased anxiety (Muraven, 2005). Finally, future research should focus more on direct opening gambits to determine whether an intervening variable, such as ovulation or mating strategy, influences receptivity to these types of gambits.

Conclusion

The present findings demonstrate that situational factors, such as target receptivity, influence the effectiveness of opening gambits. Receptivity to opening gambits from potential partners may, in part, depend on the state of regulatory capacity of the intended target. Specifically, individuals who experience ego depletion may be more receptive to innocuous relationship initiation strategies, and less receptive to cute/flippant ones. As opening gambits are often utilized in situations where regulatory capacity is naturally depleted (e.g., at the end of the day or while consuming drinking alcohol), it may play a real, but unconscious role in one's receptiveness to a relationship initiator.

Note

1. Within the random assignment to condition, we purposefully assigned more participants to the depletion condition than to the control condition (roughly three depletion conditions for every two control conditions). This was done because, based on an earlier pilot of this study where we

unsuccessfully used a different means of depletion, we anticipated that some participants would experience difficulty following the directions in the depletion condition. However, participants had no ostensible difficulty with this manipulation's instructions, resulting in the uneven numbers across cells.

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