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The Role of Affective and Cognitive Individual Differences in Social Perception

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Abstract

Three studies explored the connection between social perception processes and individual differences in the use of affective and cognitive information in relation to attitudes. Study 1 revealed that individuals high in need for affect (NFA; Maio & Esses, 2001) accentuated differences in evaluations of warm and cold traits, whereas individuals high in need for cognition (NFC; Cacioppo & Petty, 1982) accentuated differences in evaluations of competent and incompetent traits. Study 2 revealed that individual differences in NFA predicted liking of warm or cold targets, whereas individual differences in NFC predicted perceptions of competent or incompetent targets. Further, the effects of NFA and NFC were independent of structural bases and meta-bases of attitudes. Study 3 revealed that differences in the evaluation of warm and cold traits mediated the effects of NFA and NFC on liking of targets. The implications for social perception processes and for individual differences in affect-cognition are discussed.

Keywords: Affect, Cognition, Individual differences, Social perception

The Role of Affective and Cognitive Individual Differences in Social Perception

Why do I like that person so much? We spend abundant time and energy developing and maintaining positive relationships with others, but might often wonder *why* we like or dislike someone. The bases for our evaluations may be difficult to decipher, and two people might like (or dislike) the same individual for very different reasons. While social and personality psychologists have offered numerous insights toward understanding the factors that influence how we come to like and dislike others, here we explore a novel perspective. Specifically, we examine the connection between social perception processes and individual differences in the degree to which people utilize affective and cognitive information in relation to their attitudes.

Warmth and Competence in Social Perception

Every day, we meet new people and quickly form an impression about them on the basis of information concerning their traits and behaviors. Extensive research has shown that most of this information can be conceptualized in terms of two global dimensions, variously labeled as *warmth* and *competence*, *communion* and *agency*, or *nurturance* and *dominance* (for reviews, see Abele & Wojciszke, 2007; Cuddy, Fiske, & Glick, 2008; Fiske, Cuddy, & Glick, 2007; Wojciszke, 2005). According to a functional interpretation of these classes of information (Abele & Wojciszke, 2007; Fiske at al., 2007), when individuals meet a new person they want to know the other's intentions – that is, whether the target represents an opportunity or a threat (*warmth* dimension) – and whether they possess the ability to carry out those aims (*competence* dimension). The warmth/competence distinction plays an overarching role in different fields, including social perception (Wojciszke, Bazinska, & Jaworski, 1998), social value orientations (e.g., Peeters, 2002), construal of others' behaviors (Wojciszke, 1994), political psychology (Wojciszke & Klusek, 1996), and leadership (Chemers, 1997).

Diverse lines of work have considered how individuals weigh the warmth and competence dimensions. For example, research has found a compensation effect between the two dimensions

when two targets are compared (Judd, James-Hawkins, Yzerbyt, & Kashima, 2005; Kervyn,

Yzerbyt, & Judd, 2010). That is, when one target is judged more positively on one dimension, the

second target is judged more positively on the other dimension. Also, warmth judgments have been

found to be elaborated upon more quickly than competence judgments and have been observed to

have a greater impact on evaluations of others (Wojciszke & Abele, 2008). In some circumstances,

however, perceptions of competence can be more important than perceptions of warmth (Cuddy,

Glick, & Beninger, 2011). For example, competence can have a stronger effect when people

evaluate themselves and closely related others compared to when they evaluate strangers (Abele &

Wojciszke, 2007). The relative use of warmth and competence depends also on cultural orientation:

a collectivist orientation emphasizes the warmth dimension, whereas an individualist orientation

emphasizes the competence dimension (Wojciszke, 1997).

A New Perspective: Integrating Attitudinal Motivations and Social Perception

The lines of work described above imply that the relative importance of the warmth and

competence dimensions can differ as a function of context. We believe that the relative importance

of warmth and competence in evaluations should also depend on individual differences in the

motivation to use affective and cognitive information in evaluations. Researchers examining

attitude content have long speculated that attitudes can be based on affective and/or cognitive

information (e.g., Cacioppo, Petty, & Geen, 1989; Rosenberg & Hovland, 1960; Zanna & Rempel,

1988; see Maio & Haddock, 2015). Affective information refers to feelings that individuals

associate with an attitude object, whereas cognitive information refers to beliefs that individuals

associate with an attitude object. Although affect and cognition share a "synergistic relation"

(Eagly & Chaiken, 1993, p.201), they are not redundant (Crites, Fabrigar, & Petty, 1994; Esses &

Maio, 2002; Haddock & Zanna, 1999).

Research has also demonstrated that individuals differ in the degree to which their

evaluations are guided by affective and cognitive information (see Maio & Haddock, 2015).

Through the years, these affect-cognition differences have been operationalized in different ways. Of primary relevance to this paper is the *motivational* perspective. Research adopting this perspective considers the extent to which people are differentially motivated to seek out and use affective and cognitive information. These motivations are tapped by measures assessing individual differences in the need for affect (NFA; Maio & Esses, 2001) and the need for cognition (NFC; Cacioppo & Petty, 1982). NFA considers individual differences in the degree to which people approach or avoid situations that are emotion inducing (Maio & Esses, 2001). People high in NFA are motivated to understand both their own and others' emotions and they tend to use emotional information in attitude formation and in the regulation of behavior (Huskinson & Haddock, 2004). For instance, compared to people low in NFA, people high in NFA are more likely to view emotional movies and become involved in emotion-inducing events (Maio & Esses, 2001). NFC considers individual differences in the tendency to engage in and enjoy complex activities requiring cognitive effort. People high in NFC are more likely to seek out information about an object's attributes before evaluating it (Haugtvedt, Petty & Cacioppo, 1992). Relevant to this paper, research has demonstrated that NFA and NFC predict outcomes related to attitude formation and attitude change. For instance, Haddock, Maio, Arnold, and Huskinson (2008) found that higher levels of NFA predicted greater persuasion in response to an affect-based (but not cognition-based) message, whereas higher levels of NFC predicted greater persuasion in response to a cognition-based (but not affect-based) message.

Several novel hypotheses can be formed through integrating research on warmth-competence in social perception with research on individual differences in the motivation to seek out and use affective and cognitive information. On the one hand, people who are particularly motivated to seek out affective information (i.e., people high in NFA) should be more influenced by perceptions of a target person on the warmth dimension, which inherently reflects the target's capacity to elicit feelings (i.e., agreeableness versus disagreeableness). On the other hand, people

who are particularly motivated to seek out cognitive information (i.e., people high in NFC) should

be more influenced by perceptions of a target person on the competence dimension, which

inherently reflects the target's cognitive capabilities (i.e., aptitude versus ineptitude). In particular,

people who are higher in NFA should distinguish the valence of warm and cold traits more strongly

than people who are lower in NFA, whereas people who are higher in NFC should distinguish the

valence of competent and incompetent traits more than people who are lower in NFC.

Consequently, people high in NFA should judge other people in a way that is more strongly

influenced by differences between the positive and negative poles of the warmth dimension (i.e.,

they should accentuate differences in liking between people described as warm versus cold). In

comparison, people high in NFC should judge other people in a way that is more strongly

influenced by differences between the positive and negative poles of the competence dimension

(i.e., they should accentuate differences in liking between people described as competent versus

incompetent).

Indeed, existing strands of research provide tentative support for this perspective. For

example, people higher in the need for emotional support have been shown to express a preference

for interacting with a warm person over a cold person, whereas people lower in this need showed no

preference (Hill, 1991). This finding suggests that higher warmth is perceived as more emotionally

stimulating than lower warmth and that individual differences in motivation can be sensitive to

differences in warmth. Moreover, the experience of competence has long been postulated as a

reason for individuals to be high in NFC (Cacioppo, Petty, Feinstein, & Jarvis, 1996), and recent

evidence indicates that managers high in NFC are more likely to show more competent decision-

making (Carnevale, Inbar, & Lerner, 2011). This literature is in line with the notion that individual

differences in NFC and competence are linked.

We conducted three studies testing our predictions. Study 1 tested whether individual

differences in NFA and NFC predict the degree of differentiation in evaluations of traits on opposite

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ends of each dimension (i.e., warm versus cold, competent versus incompetent). Building upon the

findings, Study 2 tested whether individual differences in NFA and NFC predict the effects of

information about a target's warmth or competence on attitudes toward the target, and whether these

effects occur independently of other conceptualizations of affect- and cognition-based attitudes

described later in this article (e.g., structural and meta-bases). Study 3 combined the approaches of

the first two studies, testing whether the effects of NFA and NFC on evaluations of targets differing

in warmth and competence are mediated by different evaluations of warmth- and competence-

relevant traits.

STUDY 1

In the social perception literature, many studies have examined the valence of trait ratings

(see Abele, Uchronski, Suitner, & Wojciszke, 2008; Alicke, 1985; Anderson, 1968). Of particular

relevance, Anderson (1968) asked participants to think of a person as being described by each trait

and to rate the trait according to how much they would like the person. The results showed that the

major component of the likableness ratings were between-subjects differences, supporting the idea

of individual differences in perceptions of traits.

Study 1 investigated the degree to which NFA and NFC impact evaluations of warmth- and

competence-related traits. We tested whether individuals high in NFA are especially likely to

distinguish valence among warm-cold attributes, whereas individuals high in NFC are especially

likely to distinguish valence among competent-incompetent attributes. We expected that high NFA

individuals would evaluate warm traits as extremely positive and cold traits as extremely negative,

accentuating the differences on this dimension. Similarly, we expected that high NFC individuals

would evaluate competent traits as extremely positive and incompetent traits as extremely negative,

accentuating the differences on this dimension.

Method

Participants. Sixty students (52 females; M_{age}=21.06 years, SD=3.28) completed an

online questionnaire in exchange for £3. This sample size was sought in order to have a sufficient

ratio of participants to predictor variables in regression analyses.

Overview. The study was conducted using Qualtrics. Participants were informed that the

study involved expressing their views about personality traits. Participants completed the NFA and

NFC scales. In addition, they rated and ranked personality traits on the basis of their perceived

valence. The order of presentation of the individual differences variables and the rating and ranking

tasks was counterbalanced. Finally, participants were debriefed.

NFA and NFC. Participants' NFA was assessed with the short version of the NFA Scale

(Appel, Gnambs, & Maio, 2012). This scale comprises 10 items: five items measure the motivation

to approach emotions (e.g., "Emotions help people to get along in life, α=.83), and five assess the

motivation to avoid emotions (e.g., "I do not know how to handle my emotions, so I avoid them",

α=.81). Participants responded to these statements on a seven-point scale from 'totally disagree' to

'totally agree'. As the two dimensions were significantly correlated, $r(60)$=-.43, p<.001, a single

NFA score was calculated by reverse scoring the avoidance items (α=.84 for the single scale).

Participants' NFC was assessed using Cacioppo, Petty and Kao's (1984) 18-item measure.

Participants rated the extent to which they agreed with items such as "I really enjoy a task that

involves coming up with new solutions to problems" and "Thinking is not my idea of fun" (reverse

scored). Participants responded to these statements on a five-point scale from 'extremely

uncharacteristic of me' to 'extremely characteristic of me'. A single score for NFC was calculated

by reverse scoring the negatively keyed items (α=.90).

Interpersonal trait evaluations. Participants' perceptions of the valence of interpersonal

traits were measured in two ways. In one task, participants rated the extent to which each of 40

traits was negative or positive using a seven-point scale from 'very negative' to 'very positive'.

There were 10 warmth-related traits (e.g., sociable; α=.66), 10 cold-related traits (e.g., cold, α=.78),

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10 competence-related traits (e.g., intelligent, α=.73), and 10 incompetence-related traits (e.g.,

unintelligent, α=.79). The traits were selected from research by Tausch, Kenworthy, and Hewstone

(2007) and were integrated with traits from the circumplex Revised Interpersonal Adjective Scales

(Trapnell & Wiggins, 1990).

In the other task, participants ranked 20 traits on the basis of their valence. The traits

included five warmth-related traits, five cold-related traits, five competence-related traits, and five

incompetence-related traits. The traits used in this task were selected to be representative of those

used in the rating task, while the smaller number enabled participants to rank the traits with greater

ease.

Results

Prediction of rating data

Correlations. NFA and NFC were not correlated, $r(60)$=-.06, p=.64. Regarding the

average valence ratings of the attributes, participants who rated the warm traits more positively also

rated the cold traits more negatively, $r(60)$=-.49, p<.001. Similarly, participants who rated the

competent traits more positively also rated the incompetent traits more negatively, $r(60)$=-.69,

p<.001.

Table 1 shows correlations among NFA, NFC, and the average valence ratings of the

warm, cold, competent, and incompetent attributes. NFA scores were positively correlated with

ratings of warm traits, $r(60)$=.42, p<.001, and negatively correlated with ratings of cold traits,

$r(60)$=-.30, p=.02. These correlations are consistent with our hypotheses. Interestingly, NFA scores

were positively associated with evaluations of incompetent traits, $r(60)$=.30, p=.02. NFA scores

were not related to the valence ratings of the competent traits, $r(60)$=-.20, p=.12.

A complementary pattern of effects was found regarding the correlations between NFC

scores and attribute evaluations. As predicted, NFC scores were positively correlated with ratings

of competent traits, $r(60)$=.64, p<.001, and negatively correlated with ratings of incompetent traits,

$r(60)=-.46$, $p<.001$. NFC scores were not related to the ratings of warm, $r(60)=.11$, $p=.38$, or cold traits, $r(60)=.10$, $p=.45$.

Regression analyses. Next, we conducted regression analyses with NFA and NFC scores as predictors and the average valence ratings of the warm, cold, competetin, and incompetent attributes as outcome variables. Regarding warm traits, only NFA scores predicted participants' evaluations, $\beta=.43$, $t(57)=3.58$, $p=.001$, 95% CI [.19,.67], such that higher NFA scores were associated with more positive evaluations of the warm traits. Similarly, only NFA scores predicted participants' evaluations of the cold traits, $\beta=-.29$, $t(57)=-2.31$, $p=.025$, 95% CI [-.54,-.04], such that higher NFA scores were associated with more negative evaluations of the cold traits.

Analyses of the competence-incompetence dimension revealed a complementary pattern of results. Regarding competent traits, only NFC scores predicted participants' evaluations, $\beta=.63$, $t(57)=6.25$, $p<.001$, 95% CI [.43,.83], such that higher NFC scores were associated with more positive evaluations of competent traits. Similarly, NFC scores predicted participants' evaluations of incompetent traits, $\beta=-.45$, $t(57)=-3.95$, $p<.001$, 95% CI [-.66,-.22], such that higher NFC scores were associated with more negative evaluations of incompetent traits. Interestingly, this latter analysis revealed an effect of NFA, $\beta=.27$, $t(57)=2.39$, $p=.02$, 95% CI [.04, .50], such that higher NFA scores were associated with more *positive* evaluations of the incompetent traits. Thus, while high NFC individuals expressed a negative evaluation of the incompetent traits, high NFA individuals expressed a more positive evaluation of the same traits. We return to this finding later in the article.

Prediction of ranking measures

Correlations. To test whether NFA and NFC predicted the ranks assigned to warmth and competence dimensions, we first reversed the rank assigned to each trait (such that a higher score represented greater positivity of the trait), and then computed a median score for each of the four types of traits. Table 2 shows the correlations among NFA, NFC, the difference between the

median rank of warm and cold traits, and the difference between the median rank of competent and

incompetent traits. Consistent with our predictions, there was a positive correlation between NFA

scores and more favorable rankings for warm versus cold attributes, $r(60)=.57$, $p<.001$. Put

differently, participants high in NFA ranked warm traits more highly above cold traits than

participants low in NFA. Correspondingly, there was a positive correlation between NFC scores

and more favorable rankings for competent versus incompetent attributes, $r(60)=.42$, $p<.001$. Put

differently, participants high in NFC ranked competence traits more highly above incompetent traits

than participants low in NFC.

  Regression analyses. Next, we entered the difference between the median scores of warm

and cold traits, as well the difference between the median scores of competent and incompetent

traits, as outcome variables in separate regression analyses, with NFA and NFC scores as predictor

variables. Consistent with our hypotheses, individual differences in NFA scores positively

predicted the difference between rankings of the warm and the cold traits, $\beta=.54$, $t(57)=5.95$, $p <$

.001, 95% CI [.36,.72], whereas individual differences in NFC scores negatively predicted the

difference between rankings of the warm and the cold traits, $\beta=-.45$, $t(57)=-4.86$, $p<.001$, 95% CI [-

.64,-.26]. On the competent-incompetent dimension, individual differences in NFC positively

predicted the difference between rankings of the competent and the incompetent traits, $\beta=.40$,

$t(57)=3.61$, $p=.001$, 95% CI [.18,.62], whereas individual differences in NFA negatively predicted

the difference between rankings of the competent and the incompetent traits, $\beta=-.31$, $t(57)=2.73$,

$p=.001$, 95% CI [-.54,-.08].

Discussion

  The aim of this study was to consider the degree to which NFA and NFC are associated

with how individuals evaluate warmth and competence attributes. We expected that individual

differences in NFA would be associated with accentuated differences on the warm-cold dimension,

whereas individual differences in NFC would be associated with accentuated differences on the

competent-incompetent dimension. Consistent with this reasoning, individuals high in NFA accentuated the difference in valence between warm and cold traits, whereas individuals high in NFC accentuated the difference in valence between competent and incompetent traits. Together, these results supported our hypotheses about the role of individual differences in affective and cognitive motivation in the evaluation of information about warmth and competence traits.

STUDY 2

Study 1 was important in demonstrating the associations between individual differences in NFA and NFC and the evaluation of attributes. Of course, it is important to address the impact of these effects on *evaluations of individuals* described by warmth or competence attributes. In Study 2, we presented participants with descriptions of four fictitious targets who were described as warm, cold, competent, or incompetent. We tested whether individual differences in NFA and NFC predicted liking of these individuals.

Further, we tested whether any effects of NFA and NFC would occur independently of two other approaches used to assess individual differences in the degree to which attitudes are guided by affective and cognitive information – the structural and meta-bases perspectives. Research assessing the *structural bases* of attitudes has conceptualized attitude bases in terms of differences in the consistency among individuals' attitudes, feelings, and beliefs about attitude objects (e.g., Crites et al., 1994; Huskinson & Haddock, 2004; See, Petty, & Fabrigar, 2008, 2013). According to this perspective, people have affect-based attitudes when their overall attitudes are correlated more strongly with the favorability of their affective responses than with the favorability of their beliefs, across multiple attitude objects. Conversely, people have cognition-based attitudes when their overall attitudes are correlated more strongly with the favorability of their beliefs than with the favorability of their feelings, across multiple attitude objects. Knowing whether an individual's attitudes have an affective or cognitive structural basis has important implications. For example, people are more influenced by cogent persuasive messages that correspond to the structural basis of

their attitudes (Huskinson & Haddock, 2004; see Edwards, 1990; Fabrigar & Petty, 1999 for comparable effects using experimentally induced affective or cognitive attitudes). Further, structural bases capture variation in the efficiency of processing affective versus cognitive information (See et al., 2013).

Recently, research has focused on meta-cognitive perceptions of attitudinal bases. Within this *meta-bases* approach, participants are asked directly whether they perceive their attitudes to be more in line with their feelings or beliefs about attitude objects (See et al., 2008, 2013); their responses to such questions are used to determine the extent to which they perceive themselves as relying on affect or cognition in their attitudes. As with the motivational and structural bases approaches, the meta-bases perspective predicts attitude-relevant outcomes. For instance, See et al. (2013) found that meta-bases capture variation in the selective interest for affective versus cognitive information.

Study 2 addressed whether individual differences in NFA and NFC are linked with the effects of information about a target's warmth or competence on target evaluations. We expected that people high in NFA would be more likely to be influenced by warmth-related traits, such that individual differences in NFA would be positively associated with evaluations of a person described as warm and negatively associated with evaluations of a person described as cold. In contrast, we expected that people high in NFC would be more likely to be influenced by competence-related traits, such that individual differences in NFC would be positively associated with evaluations of a person described as competent and negatively associated with evaluations of a person described as incompetent. Furthermore, we explored whether NFA and NFC predict interpersonal evaluation independently from structural and meta-bases.

Method

Participants. One hundred and eleven students (97 females; M_{age}=20.06 years, SD=3.28) completed an online questionnaire in exchange for course credit. This sample size was sought in order to have a sufficient ratio of participants to predictor variables in regression analyses.

Procedure. The study was conducted using Qualtrics. Participants took part in a 2 (*Trait description*: competence versus warmth) x 2 (*Valence*: positive versus negative) within-participant design. The variables were manipulated by giving participants information describing four fictitious people: Carol, Lisa, Amber, and Samantha. Carol was described with warm traits, Lisa with cold traits, Amber with competence traits, and Samantha with incompetence traits (see Appendix). The order in which the four descriptions were presented was counterbalanced. Participants rated each target and ranked them on the basis of their preference. Finally, participants completed measures of NFA, NFC, structural bases, and meta-bases.[1]

Predictors.

NFA and NFC. Participants' NFA ($α$=.85) and NFC ($α$=.85) were assessed in the same way as in Study 1.

Structural attitude bases. We assessed participants' structural attitude bases via a procedure used successfully in many previous studies (e.g., Crites et al., 1994, Huskinson & Haddock, 2004, See et al., 2008; 2013). The technique requires that participants complete affective, cognitive, and attitudinal items for a number of attitude objects. The affective items ask participants to indicate the feelings that they have towards each object, using eight semantic differential scales (e.g., annoyed–happy). The cognitive items ask participants to indicate the beliefs they have about the objects, using seven semantic differential scales (e.g., useless– useful). The attitudinal items use four semantic differentials (e.g., negative–positive) to assess overall evaluations of the objects. This study used five attitude objects: abortion, birth control, the death penalty, exercising, and spiders (presented in that order).[2] After reporting their affective, cognitive, and attitudinal responses as well

as meta-bases (see below) for one attitude object, participants repeated the procedure for each of the remaining attitude objects.

A structural bases index was created by first computing two within-participant correlations for each participant. One correlation reflected the relation between the favorability of the participant's affect and attitude scores across the five attitude objects. The other measured the relation between the favorability of the participant's cognition and attitude scores across the five attitude objects. Next, these correlations were converted to Fisher's z values. Finally, consistent with previous research (Huskinson & Haddock, 2004; See et al., 2008, 2013), a participant's cognition–attitude correlation was subtracted from their affect–attitude correlation, such that higher scores indicated higher dominance of affect over cognition in the participant's attitude structure across attitude objects.

Meta-bases. After reporting their structural bases for an attitude object, participants indicated their meta-bases by answering two questions: (a) "To what extent do you think your attitudes towards (insert attitude object) are driven by your emotions?" and (b) "To what extent do you think your attitudes towards (insert attitude object) are driven by your beliefs?" Following past research (See et al., 2008, 2013), a meta-bases index was computed by first averaging participants' responses to the belief question (across objects) and the emotion question (across objects). Next, standardized values for each participant's averaged responses to the belief question were subtracted from standardized values for the participant's averaged responses to the emotion question. Therefore, larger positive scores indicated more affective meta-bases, and larger negative scores indicated more cognitive meta-bases.

Dependent variables. Participants rated each target using four items (e.g., "In general, how bad or good a person do you think X might be?"; "How much do you think you would like X?"; see Bizer, Tormala, Rucker, & Petty, 2006). Each item was answered on a seven-point scale,

with a higher value representing a more positive attitude. Alpha coefficients across targets ranged

from .84 to .89.

Participants also ranked each target on the basis of liking. These ranks were then converted,

such that a higher score was associated with a more favorable evaluation of the target. Finally,

participants indicated how much more they liked Carol compared to Lisa and Amber compared to

Samantha. These comparisons enabled direct comparisons of the warm versus cold and competent

versus incompetent targets.

Results

Correlations among predictor variables. Correlations among the predictor variables are

presented in Table 3. The only significant correlation was between NFC and meta-bases,

$r(110)=.18$, $p=.05$, such that high NFC scores were associated with more cognitive meta-bases.

Thus, consistent with other work (See et al., 2008, 2013), NFA, NFC, structural, and meta-bases

were distinct.

Correlations among evaluations of targets. Participants who rated the warm target more

positively also rated the cold target more negatively, $r(111)=-.35$, $p<.001$. Ratings of the competent

target were not associated with ratings of the incompetent target, $r(111)=-.07$, $p=.44$.

Correlations with evaluations. Correlations among the affect-cognition predictors and

evaluations of the warm and cold targets are reported in the upper section of Table 4. Consistent

with our hypothesis, higher NFA scores were associated with more positive evaluations of the warm

target, $r(111)=.28$, $p=.002$, and with more negative evaluations of the cold target, $r(111)=-.23$,

$p=.02$. Accordingly, NFA scores predicted the difference between evaluations of the warm and cold

targets, $r(111)=.31$, $p=.001$. Similarly, participants high in NFA indicated to prefer the warm target

to the cold target, $r(111)=.21$, $p=.03$.

Correlations among the affect-cognition predictors and evaluations of the competent and

incompetent targets are reported in the lower section of Table 4. As expected, higher NFC scores

were associated with more positive evaluations of the competent target, $r(111)=.19$, $p=.05$, and with

more negative evaluations of the incompetent target, $r(111)=-.20$, $p=.04$. Accordingly, NFC

predicted the difference between evaluations of the competent and incompetent targets, $r(111)=.26$,

$p=.005$. Similarly, participants high in NFC tended to prefer the competent target to the

incompetent target.

Regression analyses of evaluations. Next, we conducted regression analyses where we

entered NFA, NFC, structural bases, and meta-bases simultaneously as predictor variables.

Separate analyses were conducted for each target. Starting with the warm and cold targets, only

NFA predicted attitudes toward Carol (warm), $\beta=.30$, $t(105)=3.22$, $p=.002$, 95% CI [.11,.49], and

Lisa (cold), $\beta=-.23$, $t(105)=-2.37$, $p=.02$, 95% CI [-.42,-.04]. These analyses demonstrate that

higher NFA scores were associated with a more positive evaluation of the warm target and a more

negative evaluation of the cold target, even after controlling for the other affect-cognition variables.

Turning to the competent-incompetent dimension, only NFC scores predicted attitudes

toward Amber (competent), $\beta=.21$, $t(105)=2.21$, $p=.03$, 95% CI [.02,.40]; and Samantha

(incompetent), $\beta=-.21$, $t(105)=-2.12$, $p=.04$, 95% CI [-.41,-.01]. These analyses demonstrate that

higher NFC scores were associated with a more positive evaluation of the competent target and a

more negative evaluation of the incompetent target, even after controlling for the other affect-

cognition variables.

Next, we examined how the affect-cognition variables predicted the difference in

evaluations between (a) the warm and cold targets and (b) the competent and incompetent targets.

As expected, only NFA predicted the difference on the warm-cold dimension, $\beta=.32$, $t(105)=3.40$,

$p=.001$, 95% CI [.13,.51], whereas only NFC predicted the difference on the competence-

incompetence dimension, $\beta=.29$, $t(105)=3.01$, $p=.003$, 95% CI [.10,.48]. Put differently,

participants high in NFA uniquely accentuated differences on the warm-cold dimension by

expressing a more positive evaluation of a warm target and a more negative evaluation of a cold

target, whereas participants high in NFC uniquely accentuated differences on the competence-incompetence dimension by expressing a more positive evaluation of a competent target and a more negative evaluation of an incompetent target.

Consistent with this conclusion, additional analyses indicated that only NFA scores predicted responses to the question "How much more do you like Carol compared to Lisa?", $\beta=.23$, $t(105)=2.43$, $p=.02$, 95% CI [.04,.42], such that high NFA scores predicted greater liking of the warm over the cold target. Further, only NFC scores predicted the answer to the question "How much more do you like Amber compared to Samantha?", $\beta=.20$, $t(105)=2.07$, $p=.04$, 95% CI [.01,.39], such that high NFC scores predicted greater liking of the competent over the incompetent target.

Prediction of ranking measures. To test whether the affect-cognition variables predicted the ranks assigned to the targets, we calculated non-parametric correlations among the affect-cognition variables and the ranking of the four targets (see Table 5). Largely consistent with our hypothesis, NFA scores were positively correlated with the rank assigned to the warm target, $\rho(110)=.26$, $p=.006$, although not correlated with the rank assigned to the cold target, $\rho(110)=-.09$, $p=.37$. Further, NFC scores were positively correlated with the rank assigned to the competent target, $\rho(111)=.26$, $p=.005$, and negatively correlated with the rank assigned to the incompetent target, $\rho(110)=-.28$, $p=.002$.[3]

Discussion

Study 2 builds upon the findings of Study 1 by offering further evidence regarding the impact of NFA and NFC in the context of person perception. The results of Study 2 show that individual differences in NFA and NFC influence how people evaluate targets that differ in warmth and competence, building upon the finding in Study 1 that NFA and NFC influence the valence that individuals attach to warmth- and competence-related attributes. Specifically, NFA predicted participants' evaluations of warm and cold targets, whereas NFC predicted participants' evaluations

of competent-incompetent targets. These results suggest that individuals with high NFA relied more upon affective, warm/cold information in forming impressions, whereas individuals with high NFC relied more upon cognitive, competent/incompetent information. The finding that individual differences in NFA and NFC predict the effects of the warmth and competence information on attitudes fits past evidence showing the effects of NFA and NFC on persuasion from affective and cognitive information (Haddock et al., 2008).

Further, NFA and NFC predicted interpersonal evaluations independent of structural and meta-bases, providing additional evidence that these constructs are distinct and involve different processes (see also See et al., 2008, 2013). Before interpreting this pattern, however, it was important to test its replicability in a slightly altered design, as described below.

STUDY 3

Study 3 directly investigated the process presumed to account for the individual effects that emerged in the previous two studies. Specifically, we tested whether evaluations of warmth- and competence-related traits mediated the effects of NFA and NFC on target evaluations. We expected that valence differences in warm-cold traits would mediate the impact of NFA on liking of warm or cold targets, whereas valence differences in competent-incompetent traits would mediate the impact of NFC on liking of competent or incompetent targets.

Further, we explored whether NFA and NFC predict interpersonal evaluations through the mediation of trait evaluations, independently of structural and meta-bases. We assessed structural and meta-bases in a slightly different manner from Study 2, which measured these bases using diverse objects that should have significant affective and cognitive components. While these objects have been used reliably in past research (See et al., 2008), it is possible that they are less appropriate to the present context and its focus on *interpersonal* evaluations. To address this issue, the objects used to measure structural and meta-bases focused on individuals and groups.

Method

Participants. One hundred and ninety-seven individuals (108 males; M_{age}=23.64 years, *SD*=5.90) completed an online questionnaire in exchange for £3. This sample size was sought in order to have a sufficient ratio of participants to predictor variables in regression analyses.

Procedure. The study was conducted using Qualtrics. Participants were informed that the study involved expressing their views about personality traits. First, participants completed the NFA, NFC, structural, and meta-bases measures. Next, they read the four target descriptions used in Study 2 and rated each target. The order in which the four descriptions were presented was counterbalanced. Participants then rated 16 personality traits on the basis of their perceived positivity and negativity. Finally, participants were debriefed.

NFA, NFC, structural bases and meta-bases. Participants' NFA (α=.83) and NFC (α=.90) were assessed in the same way as the previous studies. As noted above, the structural and meta-bases measures used attitude objects reflecting individuals or groups (Tom Cruise, Britney Spears, Barack Obama, truck drivers, and scientists).

Interpersonal judgments. Attitudes toward the four targets were assessed in same way as in Study 2 (all α>.87). For parsimony, participants were not asked how much they liked one target more than another.

Interpersonal trait evaluations. In this study, we used a set of 16 of the 40 traits from Study 1, selecting traits that loaded highly on the respective factor. The set included four warmth-related traits (e.g., sociable; α=.61), four cold-related traits (e.g., cold, α=.59), four competence-related traits (e.g., intelligent, α =.64), and four incompetence-related traits (e.g., unintelligent, α=.58). Participants rated the valence of each trait using a seven-point scale from 'very negative' to 'very positive'. Given the similarity in Study 2's results between the rating and ranking measures, we did not use the ranking task.

Results

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Prediction of trait evaluations. Table 6 shows correlations among NFA, NFC, structural, and meta-bases and the average valence ratings of the warm, cold, competent, and incompetent attributes. On the warm-cold dimension, NFA scores were positively correlated with ratings of warm traits, $r(197)=.30$, $p<.001$, and negatively correlated with ratings of cold traits, $r(197)=-.20$, $p=.004$. On the competent-incompetent dimension, NFC scores were positively correlated with ratings of competent traits, $r(197)=.28$, $p<.001$, and negatively correlated with ratings of incompetent traits, $r(197)=-.26$, $p<.001$. These correlations replicate the findings of Study 1. Interestingly, NFA scores were positively related to competence ratings, $r(197)=.15$, $p=.04$ (see general discussion).

Next, we conducted regression analyses with NFA, NFC, structural, and meta-bases scores as predictors and the average valence ratings of the warm, cold, competent, and incompetent attributes as outcome variables. Regarding warm traits, only NFA predicted participants' evaluations, $\beta=.30$, $t(191)=4.26$, $p<.001$, 95% CI [.16,.45], such that higher NFA scores were associated with more positive evaluations of the warm traits. Similarly, only NFA predicted participants' evaluations of the cold traits, $\beta=-.19$, $t(191)=-2.57$, $p=.01$, 95% CI [-.33,-.04], such that higher NFA scores were associated with more negative evaluations of the cold traits. Both of these effects replicate Study 1. Regarding competent traits, only NFC predicted participants' evaluations, $\beta=.24$, $t(191)=3.44$, $p<.001$, 95% CI [.10,.39], such that higher NFC scores were associated with more positive evaluations of competent traits. Similarly, only NFC predicted participants' evaluations of incompetent traits, $\beta=-.24$, $t(191)=-3.41$, $p<.001$, 95% CI [-.39,-.10], such that higher NFC scores were associated with more negative evaluations of incompetent traits. Both of these effects replicate Study 1.

Prediction of target evaluations. Correlations among the affect-cognition predictors and evaluations of the warm and cold targets are reported in the upper section of Table 7. Consistent with Study 2, higher NFA scores were associated with more positive evaluations of the warm target,

$r(197)=.15$, $p=.03$, and more negative evaluations of the cold target, $r(197)=-.20$, $p=.004$.

Furthermore, NFA scores were positively associated with the difference between evaluations of the

warm and cold targets, $r(197)=.22$, $p=.002$.

Correlations among the affect-cognition predictors and evaluations of the competent and

incompetent targets are reported in the lower section of Table 7. As expected, only NFC scores

were associated with more positive evaluations of the competent target, $r(197)=.36$, $p<.001$.

Evaluations of the incompetent target were not significantly associated with any predictor.

Consistent with Study 2, only NFC scores were associated with the difference between evaluations

of the competent and incompetent targets, $r(197)=.28$, $p<.001$.

Next, we conducted regression analyses where we entered NFA, NFC, structural bases, and

meta-bases simultaneously as predictor variables. Separate analyses were conducted for each

target. Starting with the warm and cold targets, only NFA impacted attitudes toward Carol (warm),

$\beta=.14$, $t(191)=1.88$, $p=.06$, 95% CI [-.01,.29]. Further, NFA predicted attitudes toward Lisa (cold),

$\beta=-.23$, $t(191)=-3.22$, $p=.002$, 95% CI [-.37,-.09]. NFC also predicted attitudes toward Lisa, but in

the opposite direction, $\beta=.17$, $t(191)=2.44$, $p=.01$, 95% CI [.03,.33]. Only NFA predicted the

difference in attitudes toward Carol and Lisa, $\beta=.24$, $t(191)=3.27$, $p=.001$, 95% CI [.09;.39].

Together, these analyses demonstrate that higher NFA scores were associated with a more positive

evaluation of the warm target and a more negative evaluation of the cold target, even after

controlling for the other affect-cognition variables.

Turning to the competent-incompetent dimension, only NFC scores predicted attitudes

toward Amber (competent), $\beta=.35$, $t(191)=4.97$, $p<.001$; 95% CI [.21,.49], as well as the difference

in attitudes toward Amber and Samantha (incompetent), $\beta=.28$, $t(191)=3.96$, $p<.001$; 95% CI

[.14,.42]. Attitudes toward Samantha were not predicted by any variable, though the effect of NFC

was in the expected direction ($p=.149$). Together, these analyses demonstrate that higher NFC

scores were associated with a more positive evaluation of the competent target and the difference in

liking between the competent and incompetent targets, even after controlling for the other affect-cognition variables.

Mediation analysis. We used Process (model 4, 1000 bootstraps; Hayes, 2013) to test for mediation. For parsimony, we used the relevant individual difference measure as the predictor, the difference in evaluation of relevant attributes as the mediator, and the difference in evaluation of the relevant targets as the outcome variable. Starting with the warm-cold dimension, the analyses above showed that NFA predicted the evaluations of warm and cold traits and the difference in attitudes toward the warm and cold targets. The mediation analysis showed that the difference in the valence ratings of warm and cold traits mediated the effect of NFA on the difference in attitudes toward Carol and Lisa (IE=.30; 95% CI=.19,.46).

Turning to the competence dimension, the analyses above showed that NFC predicted evaluations of competent and incompetent traits and the difference in attitudes toward the competent and incompetent targets. The mediation analysis showed that the difference in the valence ratings of the competent and incompetent traits mediated the effect of NFC on the difference in attitudes toward Amber and Samantha (IE=.29; 95% CI=.18,.46). The mediation was partial, as the direct effect of NFC on the outcome was still significant (DE=.30; 95% CI=.02,.57).

Discussion

This study had two aims. First, we sought to replicate the primary effects found in Studies 1 and 2. Consistent with Study 1, NFA and NFC influenced valence judgments of warmth- and competence-relevant attributes. Consistent with Study 2, NFA and NFC influenced attitudes toward targets differing in warmth and competence. Further, these effects were independent of structural and meta-bases, despite changing these measures to make them particularly relevant to interpersonal attitudes. Overall, then, the primary findings were replicated.

Second, Study 3 directly tested whether evaluations of warmth- and competence-related attributes mediated the effects of NFA and NFC on interpersonal judgments. Specifically, we

expected that valence differences in perceptions of warmth-cold traits would mediate the impact of NFA on evaluations of warm-cold targets, whereas valence differences in perceptions of competent-incompetent traits would mediate the impact of NFC on evaluations of competent-incompetent targets. Consistent with this reasoning, the results confirmed that the effects of NFA and NFC on attitudes toward the targets were at least partly mediated by differences in evaluations of the warm-cold and competent-incompetent attributes.

General Discussion

The primary aim of this research was to integrate research on social perception and affective-cognitive attitude content, in order to explore whether the extent to which individuals consider and evaluate warmth-relevant and competence-relevant information is associated with affective-cognitive individual differences. In Study 1, where the outcome variable was individuals' perceptions of the valence of interpersonal traits, individual differences in NFA predicted the perceived valence of warmth-related traits, whereas individual differences in NFC predicted the perceived valence of competence-related traits. In Study 2, where the outcome consisted of evaluations of targets who differed in their attributes, only individual differences in NFA predicted liking of targets who were warm or cold, whereas only individual differences in NFC predicted perceptions of targets who were competent or incompetent. Further, the effects of NFA and NFC were independent of structural bases and meta-bases of attitudes, neither of which predicted target evaluations. Study 3 largely replicated the effects of Studies 1 and 2, while also finding that evaluations of warmth- and competence-related traits mediated the effect of NFA and NFC on interpersonal judgments. Specifically, the difference in valence ratings between warm and cold traits fully mediated the effect of NFA on warmth-related attitudes, whereas the difference in valence ratings between competent and incompetent traits partially mediated the effect of NFC on competence-related attitudes.

Together, these findings extend our knowledge about both social perception and attitudes. From the social perception perspective, the results highlight that evaluations of individuals based on warmth and competence information are related to individual differences in motives related to seeking out affective and cognitive information. Thus, the findings build upon prior research demonstrating the importance of contextual factors in person perception (e.g., Cuddy et al., 2011) by showing that attitudinal individual differences impact the effects of warmth and competence information. This means, for example, that a warm person is not necessarily judged more favorably than a competent person, but that the evaluation varies as a function of individual differences in affective and cognitive preferences.

From an attitudinal perspective, the current findings demonstrate a novel outcome that is predicted by NFA and NFC. Thus, these findings add new insights regarding the role of motivational perspectives in the psychology of attitudes. Further, NFA and NFC predicted not only perceptions of single targets, but also differences in evaluations of the positive and negative descriptions for the correspondent dimension (i.e., warm versus cold and competent versus incompetent). This is an innovation compared to classical studies on structural correspondence, where the focus was on the difference between the affective and cognitive dimension and not within the positive and negative pole of the same dimension (e.g., warm versus cold).

It is worth noting that when evaluating the favorability of attributes, NFA showed two divergent effects with respect to the evaluation of competence-relevant traits. In Study 1, NFA was positively correlated with evaluations of incompetent traits, while in Study 3 NFA was positively correlated with evaluations of competent traits. As these effects were divergent and not replicated, we are reluctant to speculate about their reliability.

In Studies 2 and 3, the effects of NFA and NFC were independent of structural bases and meta-bases of attitude. This independence fits longstanding distinctions between attitude function (i.e., motivations served by attitudes) and attitude content (Maio & Olson, 2000). NFA and NFC

are salient motivations that influence the weighting of affective and cognitive information within

each attitude component and its impact on attitude formation and attitude change. In contrast,

structural bases and meta-bases tap efficiency and self-perceptions regarding the attention devoted

to using these sources. Along these lines, measures of NFA, NFC, structural bases, and meta-bases

are quantifiably independent of each other (see also See et al., 2008). Thus, our data support the

conclusion that individual differences in affective-cognitive motivation are particularly relevant to

understanding how people weigh warmth and competence information in social perception, over

and above the efficiency and self-perception processes tapped by the structural and meta-bases.

Furthermore, this conclusion was supported with both the original approach to measuring the

structural and meta-bases and a novel approach that tailored the measures to the interpersonal

context.

Nevertheless, we would not go so far as to argue that the structural and meta-bases possess

no connection to the use of warmth and competence traits in social perception. In operationalizing

the structural and meta-bases perspectives, we followed past research and used single indices that

combined the affective and cognitive components (e.g., See et al., 2008; 2013). It is interesting to

consider the effects of separating these components. We therefore ran supplementary analyses in

which we used two scores for both of the structural and meta-bases perspectives; one focusing on

affect, the second focusing on cognition. The regression of these six predictors on outcomes in

Study 2 and Study 3 are reported in the Supplementary Analyses (online). The supplementary

analyses showed that NFA and NFC largely continued to predict warmth-related and competence-

related outcomes, even when the regression model included separate cognitive and affective indices

for structural and meta-bases. The measures of the structural bases sometimes became stronger

predictors in this separated approach, but some of their effects were not in the theoretically

congruent direction (e.g., the link between affective structural bases and ratings of the competent

target in Study 2, the link between cognitive structural bases and evaluations of warm versus cold

targets in Study 3). Moving forward, the results of these supplementary analyses suggest that the separation of the affective and cognitive dimensions of the structural bases may influence their predictive ability. Thus, the utility of different approaches for quantifying structural and meta-bases is a potentially important topic for future investigation, even though these new approaches do not alter the conclusions drawn here about the roles of NFA and NFC.

Future research

        The present findings raise additional questions for future research. For example, individuals' own perceptions of their central traits might differ as a function of individual differences in NFA and NFC - individuals high in NFA might perceive warm traits as particularly central to themselves, whereas individuals high in NFC might perceive competence traits as particularly central to themselves. Second, building upon work by Wojciszke and colleagues (e.g., Wojciszke & Abele, 2008; Wojciszke et al., 1998), the speed of judgments related to warmth and competence might differ as a function of individual differences in NFA and NFC. These effects would presumably arise as a consequence of individual differences in the extent to which affective and cognitive information is central to the self – information that is more central should be used more in self-description and be utilized more quickly in judging others.

        Another interesting consideration for future research is to extend the present results to the intergroup context. Warmth and competence emerge as fundamental dimensions in people's judgments of social groups (Cuddy et al., 2008, 2009; Fiske, Cuddy, & Glick, 2002). The Stereotype Content Model (Cuddy et al., 2008; Fiske, Glick, & Xu, 2002) has demonstrated that many social groups are stereotyped ambivalently – as competent but cold or as warm but incompetent. These patterns elicit different sets of emotions and behaviors toward the members of different groups (e.g., respect and disliking for a group perceived as competent but cold). It would be interesting to explore in greater detail the role of individual differences in NFA and NFC in this process.

Conclusion

In sum, the present studies integrated two areas of social psychological research – social perception and individual differences in the use of affect and cognition in evaluative processes. The findings revealed that individual differences in the motivation to seek out affect and cognition play an important role in evaluations of warmth and competence traits and hence should be taken into consideration when modelling use of these traits in social perception. Put simply, people react differently to warmth and competence traits, and individual differences in the motivation to seek out affect and cognition help to understand these differences.

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Table 1. *Study 1: Correlations among NFA, NFC, and attribute evaluations*

Variables	Warm traits	Cold traits	Competent traits	Incompetent traits
NFA	.42**	-.30*	-.20	-.30*
NFC	.11	.10	.64**	-.46**

Note: *p* < .05, ** *p* < .001

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Table 2. *Study 1: Correlations among NFA, NFC, and difference in ranking measures of attributes*

Variables	Difference median warm-cold	Difference median competent-incompetent
NFA	.57**	-.33**
NFC	-.47**	.42**
Difference median warm-cold	-	-.68**
Difference median competent-incompetent	-.68**	-

Note: ** *p* < .001

Table 3. *Study 2: Correlations among NFA, NFC, structural bases, and meta-bases*

Variables	NFA	NFC	Structural bases	Meta-bases
NFA	–	.16	.00	.05
NFC		–	.05	-.18*
Structural bases			–	.13
Meta-bases				–

Note: *p* < .05

Table 4. *Study 2: Correlations among NFA, NFC, structural bases, meta-bases, and attitude outcomes*

Warmth-related outcomes				
Variables	Warm	Cold	Prefer warm versus cold	Mean difference warm-cold
NFA	.28**	-.23*	.21*	.31**
NFC	-.07	-.01	-.05	-.03
Structural bases	.00	.07	.11	-.04
Meta-bases	-.03	-.08	-.07	.04
Competence-related outcomes				
Variables	Competent	Incompetent	Prefer competent versus incompetent	Mean difference competent-incompetent
NFA	.00	-.06	-.05	.04
NFC	.19*	-.20*	.18	.26**
Structural bases	-.16	-.04	-.08	-.09
Meta-bases	.05	-.06	.00	.07

Note: *p < .05; **p < .01

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Table 5. *Study 2: Non-parametric correlations among NFA, NFC, structural bases, meta-bases, and the ranking measure*

Variables	Carol (warm) ranking	Lisa (cold) ranking	Amber (competent) ranking	Samantha (incompetent) ranking
NFA	.26**	-.09	-.02	-.06
NFC	-.10	.16	.26**	-.28**
Structural bases	.10	-.16	.08	-.02
Meta-bases	-.06	.00	-.01	.01

Note: **p <.01

Table 6. *Study 3: Correlations among NFA, NFC, structural bases, meta-bases and difference in valence ratings*

Variables	Warm traits	Cold traits	Competent traits	Incompetent traits
NFA	.30**	-.20*	.15*	-.13
NFC	.01	-.04	.28**	-.26**
Structural bases	.02	-.04	.10	.11
Meta-bases	.06	-.12	-.08	.00

Note: $*p < .05; **p < .01$

Table 7. *Study 3: Correlations among NFA, NFC, structural bases, meta-bases, and attitude outcomes*

Warmth-related outcomes			
Variables	Warm	Cold	Mean difference warm-cold
NFA	.15*	-.20**	.22**
NFC	.08	.13	-.06
Structural bases	.01	-.02	.02
Meta-bases	.02	-.07	.06
Competence-related outcomes			
Variables	Competent	Incompetent	Mean difference competent-incompetent
NFA	.09	.05	.02
NFC	.36**	-.10	.28**
Structural bases	-.01	.04	-.04
Meta-bases	-.07	.03	-.06

Note: *p < .05; **p < .01*

Appendix

Carol is often regarded as a kind and sympathetic person. She tends to be warm with others. According to her friends, her best characteristic is honesty. Moreover, she likes friendship and she usually goes out with her peers.

Lisa is often regarded as a sullen and unsympathetic person. She sometimes tends to be cold with others. According to her friends, her most important characteristic is to focus on her own interests. She would rather stay home alone than go out with her peers.

Amber is often regarded as an organized and industrious person. She tends to be self-disciplined. According to her friends, her best characteristic is her intelligence. Moreover, she is reflective and inquisitive all the time.

Samantha is often regarded as a disorganized and inefficient person. She tends to be undisciplined. According to her friends, her best characteristic is her impulsiveness. She doesn't like to find out new solutions, but prefers conventional answers.

THE ROLE OF AFFECTIVE AND COGNITIVE INDIVIDUAL DIFFERENCES   43

Footnotes

[1] The predictor variables were measured at the end of the study. The order of presentation of these constructs was not manipulated across participants.

[2] We chose to maintain a consistent order in order to be consistent with the prior research using this approach and because a consistent order would minimize the introduction of variance due to order variations, helping to maximize the reliability of scores across participants.

[3] The differing degrees of freedom are due to one participant ranking just one target.

AQUINO STUDY 1
SCHOOL OF PSYCHOLOGY

In this survey you will have to express your opinion about personality traits and objects and complete different scales. The survey will last approximately 15 minutes.
Before to start the survey, please complete the following consent form:

I understand that participation in this study is entirely voluntary and that I can withdraw from the study at any time.

I understand that I am free to ask any questions at any time. I am free to withdraw or discuss my concerns with Prof. Greg Maio and Prof. Geoff Haddock, School of Psychology, Cardiff University.

I understand that the information provided by me will be held totally anonymously, so that it is impossible to trace this information back to me individually. I understand that this information may be retained indefinitely.

I also understand that at the end of the study I will be provided with additional information and feedback about the purpose of the study.

Prof. Greg Maio Cardiff University, School of Psychology 70 Park Place CF10 3AT, Cardiff, United Kingdom Tel: +44(0)29 208 76260 E-mail: Maio@cardiff.ac.uk
Prof. Geoff Haddock: Cardiff University, School of Psychology 70 Park Place CF10 3AT, Cardiff, United Kingdom. Tel: +44(0)29 208 75373 E-mail: HaddockGG@cardiff.ac.uk
 Antonio Aquino: Cardiff University School of Psychology 70 Park Place CF10 3AT, Cardiff, United Kingdom E-mail: AquinoA@cardiff.ac.uk

Ethics Committee: Ethics Secretary Tel: +44 (0) 29208 70360 Email: psychethics@cardiff.ac.uk

CONSENT I have read and understood this information and agree to participate in the study conducted by Antonio Aquino (School of Psychology, Cardiff University) with the supervision of Prof. Greg Maio and Prof. Geoff Haddock
- ❍ Yes (1)
- ❍ No (Exit Study) (2)

School of Psychology, Cardiff University

Thank you for agreeing to participate in this research.

In this session you will be participating in different tasks.

Before we start the experimental session please provide some demographic information:

AGE:

GENDER:
○ Male (1)
○ Female (2)

In this task, we would like you to answer a series of questions about yourself.
Please follow the instructions for each scale.

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NFA Please indicate the extent to which you agree with the following statements:

NFA_1 I feel that I need to experience strong emotions regularly (1)	○	○	○	○	○	○	○
NFA_2 If I reflect on my past, I see that I tend to be afraid of feeling emotions (2)	○	○	○	○	○	○	○
NFA_3 I find strong emotions overwhelming and therefore try to avoid them (3)	○	○	○	○	○	○	○
NFA_4 Emotions help people get along in life (4)	○	○	○	○	○	○	○
NFA_5 I think that it is important to explore my feelings (5)	○	○	○	○	○	○	○
NFA_6 It is important for me to know how others are feeling (6)	○	○	○	○	○	○	○

NFA_7 I would prefer not to experience either the lows or highs of emotions (7)	○	○	○	○	○	○	○
NFA_8 I do not know how to handle my emotions, so I avoid them. (8)	○	○	○	○	○	○	○
NFA_9 Emotions are dangerous —they tend to get me into situations that I would rather avoidI (9)	○	○	○	○	○	○	○
NFA_10 It is important for me to be in touch with my emotions (10)	○	○	○	○	○	○	○

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NFC For each statement below, please indicate to what extent it is characteristic of you.

NFC_1 I would prefer complex to simple problems (1)	○	○	○	○	○
NFC_2 I like to have the responsibility of handling a situation that requires a lot of thinking (2)	○	○	○	○	○
NFC_3 Thinking is not my idea of fun (3)	○	○	○	○	○
NFC_4 I would rather do something that requires little thought than something that is sure to challenge my thinking abilities (4)	○	○	○	○	○
NFC_5 I try to anticipate and avoid situations where there is likely a chance I will have to think in depth about something (5)	○	○	○	○	○
NFC_6 I find satisfaction in deliberating hard and for long hours (6)	○	○	○	○	○
NFC_7 I only think as hard as I have to (7)	○	○	○	○	○
NFC_8 I prefer to think about small, daily projects to long-term ones (8)	○	○	○	○	○

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NFC_9 I like tasks that require little thought once I've learned them (9)	○	○	○	○	○
NFC_10 The idea of relying on thought to make my way to the top appeals to me. (10)	○	○	○	○	○
NFC_11 I really enjoy a task that involves coming up with new solutions to problems (11)	○	○	○	○	○
NFC_12 Learning new ways to think doesn't excite me very much (12)	○	○	○	○	○
NFC_13 I prefer my life to be filled with puzzles that I must solve (13)	○	○	○	○	○
NFC_14 The notion of thinking abstractly is appealing to me (14)	○	○	○	○	○
NFC_15 I would prefer a task that is intellectual, difficult, and important to one that is somewhat important but does not require much thought. (15)	○	○	○	○	○

NFC_16 I feel relief rather than satisfaction after completing a task that required a lot of mental effort (16)	❍	❍	❍	❍	❍
NFC_17 It's enough for me that something gets the job done; I don't care how or why it works. (17)	❍	❍	❍	❍	❍
NFC_18 I usually end up deliberating about issues even when they do not affect me personally (18)	❍	❍	❍	❍	❍

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RANKTRAITS In this task, please evaluate how positive or negative each attribute is when forming an impression of others. Please drag each item in the corresponding box, ranking them on the basis of their positivity-negativity (most positive and most negative items at the top of corresponding box)

POSITIVE ATTRIBUTES	NEGATIVE ATTRIBUTES
IMAGINATIVE_GROUP_____ Imaginative	**IMAGINATIVE_GROUP**_____ Imaginative
IMAGINATIVE_RANK_____ Imaginative	**IMAGINATIVE_RANK**_____ Imaginative
DETERMINED_GROUP _____ Determined	**DETERMINED_GROUP** _____ Determined
DETERMINED_RANK _____ Determined	**DETERMINED_RANK** _____ Determined
PERSISTENT_GROUP _____ Persistent	**PERSISTENT_GROUP** _____ Persistent
PERSISTENT_RANK _____ Persistent	**PERSISTENT_RANK** _____ Persistent
SERIOUS_GROUP_____ Serious	**SERIOUS_GROUP**_____ Serious
SERIOUS_RANK _____ Serious	**SERIOUS_RANK** _____ Serious
INTELLIGENT_GROUP _____ Intelligent	**INTELLIGENT_GROUP** _____ Intelligent
INTELLIGENT_RANK _____ Intelligent	**INTELLIGENT_RANK** _____ Intelligent
SOCIABLE_GROUP _____ Sociable	**SOCIABLE_GROUP** _____ Sociable
SOCIABLE_RANK _____ Sociable	**SOCIABLE_RANK** _____ Sociable
POPULAR_GROUP _____ Popular	**POPULAR_GROUP** _____ Popular
POPULAR_RANK _____ Popular	**POPULAR_RANK** _____ Popular
HAPPY_GROUP _____ Happy	**HAPPY_GROUP** _____ Happy
HAPPY_RANK _____ Happy	**HAPPY_RANK** _____ Happy
WARM_GROUP _____ Warm	**WARM_GROUP** _____ Warm
WARM_RANK _____ Warm	**WARM_RANK** _____ Warm
AGREEABLE_GROUP _____ Agreeable	**AGREEABLE_GROUP** _____ Agreeable
AGREEABLE_RANK _____ Agreeable	**AGREEABLE_RANK** _____ Agreeable
NAIVE_GROUP _____ Naive	**NAIVE_GROUP** _____ Naive
NAIVE_RANK _____ Naive	**NAIVE_RANK** _____ Naive
CLUMSY_GROUP _____ Clumsy	**CLUMSY_GROUP** _____ Clumsy
CLUMSY_RANK _____ Clumsy	**CLUMSY_RANK** _____ Clumsy
FRIVOLOUS_GROUP _____ Frivolous	**FRIVOLOUS_GROUP** _____ Frivolous
FRIVOLOUS_RANK _____ Frivolous	**FRIVOLOUS_RANK** _____ Frivolous
FOOLISH_GROUP _____ Foolish	**FOOLISH_GROUP** _____ Foolish
FOOLISH_RANK _____ Foolish	**FOOLISH_RANK** _____ Foolish
UNINTELLIGENT_GROUP ____Unintelligent	**UNINTELLIGENT_GROUP** ____Unintelligent
UNINTELLIGENT_RANK _____Unintelligent	**UNINTELLIGENT_RANK** _____Unintelligent
COLD_GROUP _____ Cold	**COLD_GROUP** _____ Cold
COLD_RANK _____ Cold	**COLD_RANK** _____ Cold
PESSIMISTIC_GROUP _____ Pessimistic	**PESSIMISTIC_GROUP** _____ Pessimistic
PESSIMISTIC_RANK _____ Pessimistic	**PESSIMISTIC_RANK** _____ Pessimistic
IRRITABLE_GROUP _____ Irritable	**IRRITABLE_GROUP** _____ Irritable
IRRITABLE_RANK _____ Irritable	**IRRITABLE_RANK** _____ Irritable
MOODY_GROUP _____ Moody	**MOODY_GROUP** _____ Moody
MOODY_RANK _____ Moody	**MOODY_RANK** _____ Moody
UNHAPPY_GROUP _____ Unhappy	**UNHAPPY_GROUP** _____ Unhappy
UNHAPPY_RANK _____ Unhappy	**UNHAPPY_RANK** _____ Unhappy

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EVALRATE In this task, please evaluate how positive or negative each of the following attributes is when forming an impression of others.

PRACTICAL Practical	❍	❍	❍	❍	❍	❍	❍
DETERMINED Determined	❍	❍	❍	❍	❍	❍	❍
PERSISTENT Persistent	❍	❍	❍	❍	❍	❍	❍
SKILLFUL Skillful	❍	❍	❍	❍	❍	❍	❍
INDUSTRIOUS Industrious	❍	❍	❍	❍	❍	❍	❍
INTELLIGENT Intelligent	❍	❍	❍	❍	❍	❍	❍
IMAGINATIVE Imaginative	❍	❍	❍	❍	❍	❍	❍
SERIOUS Serious	❍	❍	❍	❍	❍	❍	❍
SHREWD Shrewd	❍	❍	❍	❍	❍	❍	❍
DISCRIMINATING Discriminating	❍	❍	❍	❍	❍	❍	❍
SOCIABLE Sociable	❍	❍	❍	❍	❍	❍	❍
POPULAR Popular	❍	❍	❍	❍	❍	❍	❍
HAPPY Happy	❍	❍	❍	❍	❍	❍	❍
WARM Warm	❍	❍	❍	❍	❍	❍	❍
CONCILIATORY Conciliatory	❍	❍	❍	❍	❍	❍	❍
AGREEABLE Agreeable	❍	❍	❍	❍	❍	❍	❍
HUMOUROUS Humorous	❍	❍	❍	❍	❍	❍	❍
TOLERANT Tolerant	❍	❍	❍	❍	❍	❍	❍

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HELPFUL Helpful	❍	❍	❍	❍	❍	❍	❍
HUMBLE Humble	❍	❍	❍	❍	❍	❍	❍
IMPULSIVE Impulsive	❍	❍	❍	❍	❍	❍	❍
SUBMISSIVE Submissive	❍	❍	❍	❍	❍	❍	❍
NAIVE Naive	❍	❍	❍	❍	❍	❍	❍
CLUMSY Clumsy	❍	❍	❍	❍	❍	❍	❍
FRIVOLOUS Frivolous	❍	❍	❍	❍	❍	❍	❍
FOOLISH Foolish	❍	❍	❍	❍	❍	❍	❍
UNINTELLIGENT Unintelligent	❍	❍	❍	❍	❍	❍	❍
IRRESPONSIBLE Irresponsible	❍	❍	❍	❍	❍	❍	❍
WASTEFUL Wasteful	❍	❍	❍	❍	❍	❍	❍
UNIMAGINATIVE Unimaginative	❍	❍	❍	❍	❍	❍	❍
UNPOPULAR Unpopular	❍	❍	❍	❍	❍	❍	❍
UNSOCIABLE Unsociable	❍	❍	❍	❍	❍	❍	❍

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HOMOURLESS Humourless	❍	❍	❍	❍	❍	❍	❍
COLD Cold	❍	❍	❍	❍	❍	❍	❍
PESSIMISTIC Pessimistic	❍	❍	❍	❍	❍	❍	❍
IRRITABLE Irritable	❍	❍	❍	❍	❍	❍	❍
MOODY Moody	❍	❍	❍	❍	❍	❍	❍
UNHAPPY Unhappy	❍	❍	❍	❍	❍	❍	❍
VAIN Vain	❍	❍	❍	❍	❍	❍	❍
SOLITARY Solitary	❍	❍	❍	❍	❍	❍	❍

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Q22 Thank you for participating in this experiment. Before describing our hypothesis, did you have any ideas about hypotheses that we could, should or would test in these studies? Did any ideas pop into your mind as you went through the tasks?

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Q24 Information Sheet

Thank you for participating in this experiment. This document describes why your participation is valuable. First, why do we need experiments to tell us anything about human behaviour? The basic features of any experiment are the manipulation of certain variables (we call these independent variables) and the measurement of other variables (dependent variables). You can look at independent variables as causes and dependent variables as effects. This brings us to the major purpose of experiments: they allow us to make cause-effect statements.

For example, in this experiment, we are interested in the degree to which different people might rely upon different sources of information when making judgments about others. In this study, participants are presented with competence-traits and warmth-related traits, and are asked to rate these traits. We are interested in comparing the ratings that participants give to these traits. We expect that individual differences can impact the evaluation of these traits, such that people who are higher in affective orientation rate warmth-related traits more positively, while people who are higher in cognitive orientation rate competence-related traits more positively.

As noted in your consent form, your name is not recorded or associated with your responses. Thank you again for participating in this study. If you wish to learn more about this study, please do not hesitate to contact us in the School of Psychology.

With thanks,
Antonio Aquino (supervised by Prof. Greg Maio, Prof. Geoff Haddock)

School of Psychology, Cardiff University

70 Park Place, Cardiff, Wales CF10 3AT

email: AquinoA@cardiff.ac.uk

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Fax: +44 (0) 29 2087 4858

Email: psychethics@cardiff.ac.uk

Relevant Readings

Haddock, G., Maio, G. R., Arnold, K., & Huskinson, T. (2008). Should persuasion be affective or cognitive? The moderating effects of need for affect and need for cognition. Personality and Social Psychology Bulletin, 34, 769-778.

Maio, G. R., & Esses, V. M. (2001). The need for affect: Individual differences in the motivation to approach or avoid emotions. Journal of Personality, 69, 583-614.

AQUINO STUDY 2

School of Psychology, Cardiff University

Consent Form

I understand that my participation in this project will involve making judgments about people and objects and completing a series of personality scales.

I understand that participation in this study is entirely voluntary and that I can

withdraw from the study at any time without giving a reason.

I understand that I am free to ask any questions at any time. I am free to

withdraw or discuss my concerns with Prof. Greg Maio or Prof. Geoff Haddock.

I understand that the information provided by me will be held totally

anonymously, so that it is impossible to trace this information back to me

individually. I understand that, in accordance with the Data Protection Act, this

information may be retained indefinitely.

I also understand that at the end of the study I will be provided with additional

information and feedback about the purpose of the study.

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CONSENT I have read and understood this information and agree to participate in the study conducted by Antonio Aquino (School of Psychology, Cardiff University) with the supervision of Prof. Greg Maio and Prof. Geoff Haddock

❍ Yes (1)
❍ No (2)

If No Is Selected, Then Skip To End of Survey

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School of Psychology, Cardiff University

Thank you for agreeing to participate in this research.

In this session you will be participating in different tasks.

Before we start the experimental session please provide some demographic information:

AGE:

GENDER:
❍ Male (1)
❍ Female (2)

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In this task, you will read descriptions of different people and then answer some questions about what you have read.

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CAROLDESC Please read carefully the subsequent series of sentences about Carol.
"*Carol is often regarded as a kind and sympathetic person. She tends to be warm with others. According to her friends, her best characteristic is honesty. Moreover, she likes friendship and she usually goes out with her peers*".
On the basis of what you have read, please answer the following questions about Carol.

CAROL1 In general, how bad or good a person do you think Carol might be?
- ❍ Very Bad (-3)
- ❍ Bad (-2)
- ❍ Somewhat Bad (-1)
- ❍ Neither Bad nor Good (0)
- ❍ Somewhat Good (1)
- ❍ Good (2)
- ❍ Very Good (3)

CAROL2 In general, how negative or positive is your impression of Carol?
- ❍ Very Negative (-3)
- ❍ Negative (-2)
- ❍ Somewhat Negative (-1)
- ❍ Neither Negative nor Positive (0)
- ❍ Somewhat Positive (1)
- ❍ Positive (2)
- ❍ Very Positive (3)

CAROL3 How much do you think you would like Carol?
- ❍ Dislike her very much (-3)
- ❍ Dislike her (-2)
- ❍ Dislike her a little (-1)
- ❍ Neither dislike nor like (0)
- ❍ Like her a little (1)
- ❍ Like her (2)
- ❍ Like her very much (3)

CAROL4 How unfavorable or favorable is your impression of Carol?
- ❍ Very Unfavorable (-3)
- ❍ Unfavorable (-2)
- ❍ Somewhat Unfavorable (-1)
- ❍ Neither Unfavorable nor Favorable (0)
- ❍ Somewhat Favorable (1)
- ❍ Favorable (2)
- ❍ Very Favorable (3)

AMBDESC Please read carefully the subsequent series of sentences about Amber.
"*Amber is often regarded as an organized and industrious person. She tends to be self-disciplined. According to her friends, her best characteristic is her intelligence. Moreover, she is reflective and inquisitive all the time*".
On the basis of what you have read, please answer the following questions about Amber.

AMBER1 In general, how bad or good a person do you think Amber might be?
- ○ Very Bad (-3)
- ○ Bad (-2)
- ○ Somewhat Bad (-1)
- ○ Neither Bad nor Good (0)
- ○ Somewhat Good (1)
- ○ Good (2)
- ○ Very Good (3)

AMBER2 In general, how negative or positive is your impression of Amber?
- ○ Very negative (-3)
- ○ Negative (-2)
- ○ Somewhat Negative (-1)
- ○ Neither Negative nor Positive (0)
- ○ Somewhat positive (1)
- ○ Positive (2)
- ○ Very positive (3)

- ○ **AMBER3** How much do you think you would like Amber?
- ○ Dislike her very much (-3)
- ○ Dislike her (-2)
- ○ Dislike her a little (-1)
- ○ Neither Like nor Dislike (0)
- ○ Like her a little (1)
- ○ Like her (2)
- ○ Like her very much (3)

- ○ **AMBER4** How unfavorable or favorable is your impression of Amber?
- ○ Very Unfavorable (-3)
- ○ Unfavorable (-2)
- ○ Somewhat Unfavorable (-1)
- ○ Neither Unfavorable nor Favorable (0)
- ○ Somewhat Favorable (1)
- ○ Favorable (2)
- ○ Very Favorable (3)

LISADESC Please read carefully the subsequent series of sentences about Lisa.
"***Lisa is often regarded as a sullen and unsympathetic person. She sometimes tends to be cold with others. According to her friends, her most important characteristic is to focus on her own interests. She would rather stay home alone than go out with her peers***".
On the basis of what you have read, please answer the following questions about Lisa.

LISA1 In general, how bad or good a person do you think Lisa might be?
- ❍ Very Bad (-3)
- ❍ Bad (-2)
- ❍ Somewhat Bad (-1)
- ❍ Neither Bad Nor Good (0)
- ❍ Somewhat Good (1)
- ❍ Good (2)
- ❍ Very Good (3)

LISA2 In general, how negative or positive is your impression of Lisa?
- ❍ Very Negative (-3)
- ❍ Negative (-2)
- ❍ Somewhat Negative (-1)
- ❍ Neither Negative nor Positive (0)
- ❍ Somewhat Positive (1)
- ❍ Positive (2)
- ❍ Very Positive (3)

LISA3 How much do you think you would like Lisa?
- ❍ Dislike her very much (-3)
- ❍ Dislike her (-2)
- ❍ Dislike her a little (-1)
- ❍ Neither dislike nor like (0)
- ❍ Like her a little (1)
- ❍ Like her (2)
- ❍ Like her very much (3)

LISA4 How unfavorable or favorable is your impression of Lisa?
- ❍ Very Unfavorable (-3)
- ❍ Unfavorable (-2)
- ❍ Somewhat Unfavorable (-1)
- ❍ Neither Unfavorable nor Favorable (0)
- ❍ Somewhat Favorable (1)
- ❍ Favorable (2)
- ❍ Very Favorable (3)

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SAMDESC Please read carefully the subsequent series of sentences about Samantha:
"Samantha is often regarded as a disorganized and inefficient person. She tends to be undisciplined. According to her friends, her best characteristic is her impulsiveness. She doesn't like to find out new solutions, but prefers conventional answers".
On the basis of what you have read, please answer the following questions about Samantha:

SAM1 In general, how bad or good a person do you think Samantha might be?
- ◯ Very Bad (-3)
- ◯ Bad (-2)
- ◯ Somewhat Bad (-1)
- ◯ Neither Bad nor Good (0)
- ◯ Somewhat Good (1)
- ◯ Good (2)
- ◯ Very Good (3)

SAM2 In general, how negative or positive is your impression of Samantha?
- ◯ Very Negative (-3)
- ◯ Negative (-2)
- ◯ Somewhat Negative (-1)
- ◯ Neither Negative nor Positive (0)
- ◯ Somewhat Positive (1)
- ◯ Positive (2)
- ◯ Very Positive (3)

SAM3 How much do you think you would like Samantha?
- ◯ Dislike her very much (-3)
- ◯ Dislike her (-2)
- ◯ Dislike her a little (1)
- ◯ Neither dislike nor like (0)
- ◯ Like her a little (1)
- ◯ Like her (2)
- ◯ Like her very much (3)

SAM4 How unfavorable or favorable is your impression of Samantha?
- ◯ Very Unfavorable (-3)
- ◯ Unfavorable (-2)
- ◯ Somewhat Unfavorable (-1)
- ◯ Neither Unfavorable nor Favorable (0)
- ◯ Somewhat Favorable (1)
- ◯ Favorable (2)
- ◯ Very Favorable (3)

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RANK Please read again the descriptions of Amber, Carol, Lisa and Samantha and then rank them, following the instructions below:

"Amber is often regarded as an organized and industrious person. She tends to be self-disciplined. According to her friends, her best characteristic is her intelligence. Moreover, she is reflective and inquisitive all the time".

"Carol is often regarded as a kind and sympathetic person. She tends to be warm with others. According to her friends, her best characteristic is honesty. Moreover, she likes friendship and she usually goes out with her peers".

"Lisa is often regarded as a sullen and unsympathetic person. She sometimes tends to be cold with others. According to her friends, her most important characteristic is to focus on her own interests. She would rather stay home alone than go out with her peers".

"Samantha is often regarded as a disorganized and inefficient person. She tends to be undisciplined. According to her friends, her best characteristic is her impulsiveness. She doesn't like to find out new solutions, but prefers conventional answers".

Who of these persons do you like most? Please rank these individuals from those you most prefer (Number 1) to those you least prefer (Number 4)

       RANK_1 _____ AMBER (1)
       RANK_2 _____ CAROL (2)
       RANK_3 _____ LISA (3)
       RANK_4 _____ SAMANTHA (4)

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AMB-SAM How much more do you like Amber compared to Samantha?
- ◯ Not At All (-3)
- ◯ Very little (-2)
- ◯ A Little (-1)
- ◯ Uncertain (0)
- ◯ Rather (1)
- ◯ Very much (2)
- ◯ Extremely (3)

CAR-LIS How much more do you like Carol compared to Lisa?
- ◯ Not at All (-3)
- ◯ Very little (-2)
- ◯ A Little (-1)
- ◯ Uncertain (0)
- ◯ Rather (1)
- ◯ Very much (2)
- ◯ Extremely (3)

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NFA In this task, we would like you to answer a series of questions about your own beliefs. Please follow the instructions for each scale.

Please indicate the extent to which you agree with the following statements:

NFA_1 I feel that I need to experience strong emotions regularly (1)	○	○	○	○	○	○	○
NFA_2 If I reflect on my past, I see that I tend to be afraid of feeling emotions (2)	○	○	○	○	○	○	○
NFA_3 I find strong emotions overwhelming and therefore try to avoid them (3)	○	○	○	○	○	○	○
NFA_4 Emotions help people get along in life (4)	○	○	○	○	○	○	○
NFA_5 I think that it is important to explore my feelings (5)	○	○	○	○	○	○	○
NFA_6 It is important for me to be in touch with my feelings (6)	○	○	○	○	○	○	○
NFA_7 I would to prefer not to experience either the lows or highs of emotions (7)	○	○	○	○	○	○	○

NFA_8 I do not know how to handle my emotions, so I avoid them. (8)	○	○	○	○	○	○	○
NFA_9 Emotions are dangerous—they tend to get me into situations that I would rather avoid (9)	○	○	○	○	○	○	○
NFA_10 It is important for me to know how others are feeling (10)	○	○	○	○	○	○	○

NFC For each statement below, please indicate to what extent it is characteristic of you.

NFC_1 I would prefer complex to simple problems (1)	○	○	○	○	○
NFC_2 I like to have the responsibility of handling a situation that requires a lot of thinking (2)	○	○	○	○	○
NFC_3 Thinking is not my idea of fun (3)	○	○	○	○	○
NFC_4 I would rather do something that requires little thought than something that is sure to challenge my thinking abilities (4)	○	○	○	○	○
NFC_5 I try to anticipate and avoid situations where there is likely a chance I will have to think in depth about something (5)	○	○	○	○	○
NFC_6 I find satisfaction in deliberating hard and for long hours (6)	○	○	○	○	○
NFC_7 I only think as hard as I have to (7)	○	○	○	○	○
NFC_8 I prefer to think about small, daily projects to long-term ones (8)	○	○	○	○	○

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NFC_9 I like tasks that require little thought once I've learned them (9)	❍	❍	❍	❍	❍
NFC_10 The idea of relying on thought to make my way to the top appeals to me. (10)	❍	❍	❍	❍	❍
NFC_11 I really enjoy a task that involves coming up with new solutions to problems (11)	❍	❍	❍	❍	❍
NFC_12 Learning new ways to think doesn't excite me very much (12)	❍	❍	❍	❍	❍
NFC_13 I prefer my life to be filled with puzzles that I must solve (13)	❍	❍	❍	❍	❍
NFC_14 The notion of thinking abstractly is appealing to me (14)	❍	❍	❍	❍	❍
NFC_15 I would prefer a task that is intellectual, difficult, and important to one that is somewhat important but does not require much thought. (15)	❍	❍	❍	❍	❍

NFC_16 I feel relief rather than satisfaction after completing a task that required a lot of mental effort (16)	○	○	○	○	○
NFC_17 It's enough for me that something gets the job done; I don't care how or why it works. (17)	○	○	○	○	○
NFC_18 I usually end up deliberating about issues even when they do not affect me personally (18)	○	○	○	○	○

Sometimes, people's opinion regarding various issues and objects are related to their personality. Please be honest in expressing your attitudes toward the various objects.

Please use the scale to indicate the response that best describes your FEELINGS about abortion.

Thinking of abortion makes me feel:

ABODELIG

Sad **-3**	**-2**	**-1**	**0**	**+1**	**+2**	Delighted **+3**

ABOHAPPY

Annoyed **-3**	**-2**	**-1**	**0**	**1**	**2**	Happy **3**

ABOCALM

Tense **-3**	**-2**	**-1**	**0**	**+1**	**+2**	Calm **+3**

ABOEXCI

Bored **-3**	**-2**	**-1**	**0**	**+1**	**+2**	Excited **+3**

ABORELAX

Angry **-3**	**-2**	**-1**	**0**	**+1**	**+2**	Relaxed **+3**

ABOACCEP

Disgusted **-3**	**-2**	**-1**	**0**	**+1**	**+2**	Acceptance **+3**

ABOLOVE

Hateful **-3**	**-2**	**-1**	**0**	**+1**	**+2**	Love **+3**

ABOJOY

Sorrow **-3**	**-2**	**-1**	**0**	**+1**	**+2**	Joy **+3**

Please use the scale to indicate the responses that best describes your BELIEFS about abortion.

Abortion is:

ABOWISE

Foolish **-3**	**-2**	**-1**	**0**	**+1**	**+2**	Wise **+3**

ABOPERF

Imperfect **-3**	**-2**	**-1**	**0**	**+1**	**+2**	Perfect **+3**

ABOBEN

Harmful **-3**	**-2**	**-1**	**0**	**+1**	**+2**	Beneficial **+3**

ABOUSEFU

Useless **-3**	**-2**	**-1**	**0**	**+1**	**+2**	Useful **+3**

ABOSAFE

Unsafe **-3**	**-2**	**-1**	**0**	**+1**	**+2**	Safe **+3**

ABOVALUA

Worthless **-3**	**-2**	**-1**	**0**	**+1**	**+2**	Valuable **+3**

ABOWHOLE

Unhealthy **-3**	**-2**	**-1**	**0**	**+1**	**+2**	Wholesome **+3**

Please respond on each of the following scales that best describes your overall attitude about abortion.

My overall attitude toward abortion is:

ABOPOS

Negative	-2	-1	0	+1	+2	Positive
-3						+3

ABOGOOD

Bad	-2	-1	0	+1	+2	Good
-3						+3

ABOLIKE

Dislike	-2	-1	0	+1	+2	Like
-3						+3

ABODESIR

Undesirable	-2	-1	0	+1	+2	Desirable
-3						+3

ABOMETAF To what extent do you think your attitude toward abortion is driven by your feelings?

Not at all driven by my feelings	-2	-1	0	+1	+2	Totally driven by my feelings
-3						+3

ABOMETCO To what extent do you think your attitude toward abortion is driven by your beliefs?

Not at all driven by my beliefs	-2	-1	0	+1	+2	Totally driven by my beliefs
-3						+3

Please use the scale to indicate the response that best describes your FEELINGS about birth control.

Thinking of birth control makes me feel:

BIRDELIG

Sad **-3**	**-2**	**-1**	**0**	**+1**	**+2**	Delighted **+3**

BIRHAPPY

Annoyed **-3**	**-2**	**-1**	**0**	**1**	**2**	Happy **3**

BIRCALM

Tense **-3**	**-2**	**-1**	**0**	**+1**	**+2**	Calm **+3**

BIREXCIT

Bored **-3**	**-2**	**-1**	**0**	**+1**	**+2**	Excited **+3**

BIRRELAX

Angry **-3**	**-2**	**-1**	**0**	**+1**	**+2**	Relaxed **+3**

BIRACCEP

Disgusted **-3**	**-2**	**-1**	**0**	**+1**	**+2**	Acceptance **+3**

BIRLOVE

Hateful **-3**	**-2**	**-1**	**0**	**+1**	**+2**	Love **+3**

BIRJOY

Sorrow **-3**	**-2**	**-1**	**0**	**+1**	**+2**	Joy **+3**

Please use the scale to indicate the responses that best describes your BELIEFS about birth control.

Birth control is:

BIRWISE

Foolish						Wise
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

BIRPERF

Imperfect						Perfect
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

BIRBENEF

Harmful						Beneficial
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

BIRUSEFU

Useless						Useful
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

BIRSAFE

Unsafe						Safe
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

BIRVALUA

Worthless						Valuable
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

BIRWHOLE

Unhealthy						Wholesome
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

Please respond on each of the following scales that best describes your overall attitude about birth control.

My overall attitude toward birth control is:

BIRPOSIT

Negative -3	-2	-1	0	+1	+2	Positive +3

BIRGOOD

Bad -3	-2	-1	0	+1	+2	Good +3

BIRLIKE

Dislike -3	-2	-1	0	+1	+2	Like +3

BIRDESIR

Undesirable -3	-2	-1	0	+1	+2	Desirable +3

BIRMETAF To what extent do you think your attitude toward birth control is driven by your feelings?

Not at all driven by my feelings -3	-2	-1	0	+1	+2	Totally driven by my feelings +3

BIRMETCO To what extent do you think your attitude toward birth control is driven by your beliefs?

Not at all driven by my beliefs -3	-2	-1	0	+1	+2	Totally driven by my beliefs +3

Please use the scale to indicate the response that best describes your FEELINGS about the death penalty.

Thinking of the death penalty makes me feel:

DEADELIG

Sad						Delighted
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

DEAHAPPY

Annoyed						Happy
-3	**-2**	**-1**	**0**	**1**	**2**	**3**

DEACALM

Tense						Calm
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

DEAEXCIT

Bored						Excited
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

DEARELAX

Angry						Relaxed
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

DEAACCEP

Disgusted						Acceptance
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

DEALOVE

Hateful						Love
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

DEAJOY

Sorrow						Joy
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

Please use the scale to indicate the responses that best describes your BELIEFS about the death penalty.

The death penalty is:

DEAWISE

Foolish						Wise
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

DEAPERF

Imperfect						Perfect
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

DEABENEF

Harmful						Beneficial
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

DEAUSEFU

Useless						Useful
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

DEASAFE

Unsafe						Safe
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

DEAVALUA

Worthless						Valuable
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

DEAWHOLE

Unhealthy						Wholesome
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

Please respond on each of the following scales that best describes your overall attitude about the death penalty.

My overall attitude toward the death penalty is:

DEAPOSIT

Negative -3	-2	-1	0	+1	+2	Positive +3

DEAGOOD

Bad -3	-2	-1	0	+1	+2	Good +3

DEALIKE

Dislike -3	-2	-1	0	+1	+2	Like +3

DEADESIR

Undesirable -3	-2	-1	0	+1	+2	Desirable +3

DEAMETAF To what extent do you think your attitude toward the death penalty is driven by your feelings?

Not at all driven by my feelings -3	-2	-1	0	+1	+2	Totally driven by my feelings +3

DEAMETCO To what extent do you think your attitude toward the death penalty is driven by your beliefs?

Not at all driven by my beliefs -3	-2	-1	0	+1	+2	Totally driven by my beliefs +3

Please use the scale to indicate the response that best describes your FEELINGS about exercising.

Thinking of exercising makes me feel:

EXEDELIG

Sad	-2	-1	0	+1	+2	Delighted
-3	-2	-1	0	+1	+2	+3

EXEHAPPY

Annoyed	-2	-1	0	1	2	Happy
-3	-2	-1	0	1	2	3

EXECALM

Tense	-2	-1	0	+1	+2	Calm
-3	-2	-1	0	+1	+2	+3

EXEECIT

Bored	-2	-1	0	+1	+2	Excited
-3	-2	-1	0	+1	+2	+3

EXERELAX

Angry	-2	-1	0	+1	+2	Relaxed
-3	-2	-1	0	+1	+2	+3

EXEACCEP

Disgusted	-2	-1	0	+1	+2	Acceptance
-3	-2	-1	0	+1	+2	+3

EXELOVE

Hateful	-2	-1	0	+1	+2	Love
-3	-2	-1	0	+1	+2	+3

EXEJOY

Sorrow	-2	-1	0	+1	+2	Joy
-3	-2	-1	0	+1	+2	+3

Please use the scale to indicate the responses that best describes your BELIEFS about exercising.

Exercising is:

EXEWISE

Foolish -3	-2	-1	0	+1	+2	Wise +3

EXEPERF

Imperfect -3	-2	-1	0	+1	+2	Perfect +3

EXEBENEF

Harmful -3	-2	-1	0	+1	+2	Beneficial +3

EXEUSEFU

Useless -3	-2	-1	0	+1	+2	Useful +3

EXESAFE

Unsafe -3	-2	-1	0	+1	+2	Safe +3

EXEVALUA

Worthless -3	-2	-1	0	+1	+2	Valuable +3

EXEWHOLE

Unhealthy -3	-2	-1	0	+1	+2	Wholesome +3

Please respond on each of the following scales that best describes your overall attitude about exercising.

My overall attitude toward exercising is:

EXEPOSIT

Negative -3	-2	-1	0	+1	+2	Positive +3

EXEGOOD

Bad -3	-2	-1	0	+1	+2	Good +3

EXELIKE

Dislike -3	-2	-1	0	+1	+2	Like +3

EXEDESIR

Undesirable -3	-2	-1	0	+1	+2	Desirable +3

EXEMETAF To what extent do you think your attitude toward exercising is driven by your feelings?

Not at all driven by my feelings -3	-2	-1	0	+1	+2	Totally driven by my feelings +3

EXEMETCO To what extent do you think your attitude toward exercising is driven by your beliefs?

Not at all driven by my beliefs -3	-2	-1	0	+1	+2	Totally driven by my beliefs +3

Please use the scale to indicate the response that best describes your FEELINGS about spiders.

Thinking of spiders makes me feel:

SPIDELIG

Sad -3	-2	-1	0	+1	+2	Delighted +3

SPIHAPPY

Annoyed -3	-2	-1	0	1	2	Happy 3

SPICALM

Tense -3	-2	-1	0	+1	+2	Calm +3

SPIEXCIT

Bored -3	-2	-1	0	+1	+2	Excited +3

SPIRELAX

Angry -3	-2	-1	0	+1	+2	Relaxed +3

SPIACCEP

Disgusted -3	-2	-1	0	+1	+2	Acceptance +3

SPILOVE

Hateful -3	-2	-1	0	+1	+2	Love +3

SPIJOY

Sorrow -3	-2	-1	0	+1	+2	Joy +3

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Please use the scale to indicate the responses that best describes your BELIEFS about spiders.

Spiders are:

SPIWISE

Foolish	-2	-1	0	+1	+2	Wise
-3						+3

SPIPERF

Imperfect	-2	-1	0	+1	+2	Perfect
-3						+3

SPIBENEF

Harmful	-2	-1	0	+1	+2	Beneficial
-3						+3

SPIUSEF

Useless	-2	-1	0	+1	+2	Useful
-3						+3

SPISAFE

Unsafe	-2	-1	0	+1	+2	Safe
-3						+3

SPIVALUA

Worthless	-2	-1	0	+1	+2	Valuable
-3						+3

SPIWHOLE

Unhealthy	-2	-1	0	+1	+2	Wholesome
-3						+3

Q139 Thank you for participating in this experiment. Before describing our hypothesis, did you have any ideas about hypotheses that we could, should or would test in these studies? Did any ideas pop into your mind as you went through the tasks?

Q140 Information Sheet

Thank you for participating in this experiment. This document describes why your participation is valuable. First, why do we need experiments to tell us anything about human behaviour? The basic features of any experiment are the manipulation of certain variables (we call these independent variables;) and the measurement of other variables (dependent variables). You can look at independent variables as causes and dependent variables as effects. This brings us to the major purpose of experiments: they allow us to make cause-effect statements.

For example, in this experiment, we are interested in the degree to which different people might rely upon different sources of information when making judgments about others. In this study, participants are presented with information describing fictitious people (e.g., Amber, Carol). Some of these fictitious people are described by traits that highlight competence, whereas other people are described by traits that highlight warmth. We are comparing the ratings that participants give to people described with competence traits with the ratings that participants give to people described with warmth traits.

We expect that the effects of reading about competence versus warmth traits differ between participants. Specifically, we expect that people who tend to rely upon their feelings (i.e., affective individuals) are more likely to be influenced by the warmth-related traits, whereas people who tend to rely upon their beliefs (i.e., cognitive individuals) are more likely to be influenced by the competence-related traits. These individual differences are being assessed using the questionnaires that you completed.

We assure you that your responses in this experiment are anonymous. As noted in your consent form, your name is not recorded or associated with your answers. Thank you again for participating in this study. If you wish to learn more about this study or for any complaint about it, please do not hesitate to contact us in the School of Psychology. With thanks,

Antonio Aquino (supervised by Prof. Greg Maio, Prof. Geoff Haddock)

School of Psychology, Cardiff University
70 Park Place
Cardiff, Wales CF10 3AT
email: AquinoA@cardiff.ac.uk

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Relevant Readings

Haddock, G., Maio, G. R., Arnold, K., & Huskinson, T. (2008). Should persuasion be affective or cognitive? The moderating effects of need for affect and need for cognition. Personality and Social Psychology Bulletin, 34, 769-778.

Maio, G. R., & Esses, V. M. (2001). The need for affect: Individual differences in the motivation to approach or avoid emotions. Journal of personality, 69(4), 583-614.

AQUINO STUDY 3
SCHOOL OF PSYCHOLOGY

CONSENT FORM

In this survey you will be asked to express your opinion about personality traits, people and objects and complete different scales. The survey will last 10 to 15 minutes.
Before starting the survey, please complete the following consent form:

I understand that participation in this study is entirely voluntary and that I can withdraw from the study at any time.
I understand that I am free to ask any questions at any time. I am free to withdraw or discuss my concerns with Prof. Greg Maio and Prof. Geoff Haddock, School of Psychology, Cardiff University.
I understand that the information provided by me will be held totally anonymously, so that it is impossible to trace this information back to me individually. I understand that this information may be retained indefinitely.
I also understand that at the end of the study I will be provided with additional information and feedback about the purpose of the study.

Prof. Greg Maio Cardiff University, School of Psychology 70 Park Place CF10 3AT, Cardiff, United Kingdom Tel: +44(0)29 208 76260 E-mail: Maio@cardiff.ac.uk

Prof. Geoff Haddock: Cardiff University, School of Psychology 70 Park Place CF10 3AT, Cardiff, United Kingdom. Tel: +44(0)29 208 75373 E-mail: HaddockGG@cardiff.ac.uk

Lukas Wolf: Cardiff University, School of Psychology 70 Park Place CF10 3AT, Cardiff, United Kingdom. E-mail: wolflj@cardiff.ac.uk

Antonio Aquino: Chieti-Pescara University, via dei Vestini, 31, 66100 Chieti, Italy E-mail: antonio.aquino@unich.it

Ethics Committee: Ethics Secretary Tel: +44 (0) 29208 70360 Email: psychethics@cardiff.ac.uk

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CONSENT I have read and understood this information and agree to participate in the study conducted by Antonio Aquino (School of Psychology, Cardiff University) with the supervision of Prof. Greg Maio and Prof. Geoff Haddock

❍ Yes (1)
❍ No (2)

If No Is Selected, Then Skip To End of Survey

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School of Psychology, Cardiff University

Thank you for agreeing to participate in this research.

In this session you will be participating in different tasks.

Before we start the experimental session please provide some demographic information:

AGE:

GENDER:
○ Male (1)
○ Female (2)

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In this task, we would like you to answer a series of questions about yourself. Please follow the instructions for each scale.

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NFA Please indicate the extent to which you agree with the following statements:

NFA_1 I feel that I need to experience strong emotions regularly (1)	○	○	○	○	○	○	○
NFA_2 If I reflect on my past, I see that I tend to be afraid of feeling emotions (2)	○	○	○	○	○	○	○
NFA_3 I find strong emotions overwhelming and therefore try to avoid them (3)	○	○	○	○	○	○	○
NFA_4 Emotions help people get along in life (4)	○	○	○	○	○	○	○
NFA_5 I think that it is important to explore my feelings (5)	○	○	○	○	○	○	○
NFA_6 It is important for me to know how others are feeling (6)	○	○	○	○	○	○	○

NFA_7 I would prefer not to experience either the lows or highs of emotions (7)	○	○	○	○	○	○	○
NFA_8 I do not know how to handle my emotions, so I avoid them. (8)	○	○	○	○	○	○	○
NFA_9 Emotions are dangerous—they tend to get me into situations that I would rather avoid (9)	○	○	○	○	○	○	○
NFA_10 It is important for me to be in touch with my emotions (10)	○	○	○	○	○	○	○

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NFC For each statement below, please indicate to what extent it is characteristic of you.

NFC_1 I would prefer complex to simple problems (1)	❍	❍	❍	❍	❍
NFC_2 I like to have the responsibility of handling a situation that requires a lot of thinking (2)	❍	❍	❍	❍	❍
NFC_3 Thinking is not my idea of fun (3)	❍	❍	❍	❍	❍
NFC_4 I would rather do something that requires little thought than something that is sure to challenge my thinking abilities (4)	❍	❍	❍	❍	❍
NFC_5 I try to anticipate and avoid situations where there is likely a chance I will have to think in depth about something (5)	❍	❍	❍	❍	❍
NFC_6 I find satisfaction in deliberating hard and for long hours (6)	❍	❍	❍	❍	❍
NFC_7 I only think as hard as I have to (7)	❍	❍	❍	❍	❍
NFC_8 I prefer to think about small, daily projects to long-term ones (8)	❍	❍	❍	❍	❍

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NFC_9 I like tasks that require little thought once I've learned them (9)	○	○	○	○	○
NFC_10 The idea of relying on thought to make my way to the top appeals to me. (10)	○	○	○	○	○
NFC_11 I really enjoy a task that involves coming up with new solutions to problems (11)	○	○	○	○	○
NFC_12 Learning new ways to think doesn't excite me very much (12)	○	○	○	○	○
NFC_13 I prefer my life to be filled with puzzles that I must solve (13)	○	○	○	○	○
NFC_14 The notion of thinking abstractly is appealing to me (14)	○	○	○	○	○
NFC_15 I would prefer a task that is intellectual, difficult, and important to one that is somewhat important but does not require much thought. (15)	○	○	○	○	○

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NFC_16 I feel relief rather than satisfaction after completing a task that required a lot of mental effort (16)	○	○	○	○	○
NFC_17 It's enough for me that something gets the job done; I don't care how or why it works. (17)	○	○	○	○	○
NFC_18 I usually end up deliberating about issues even when they do not affect me personally (18)	○	○	○	○	○

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Sometimes, people's opinion regarding various issues and people are related to their personality. Please be honest in expressing your attitudes toward the targets.

Please use the scale to indicate the response that best describes your FEELINGS about truck drivers.

Thinking of truck drivers makes me feel:

TRUCKDELIG

Sad						Delighted
-3	-2	-1	0	+1	+2	+3

TRUCKHAPPY

Annoyed						Happy
-3	-2	-1	0	1	2	3

TRUCKCALM

Tense						Calm
-3	-2	-1	0	+1	+2	+3

TRUCKEXCIT

Bored						Excited
-3	-2	-1	0	+1	+2	+3

TRUCKRELAX

Angry						Relaxed
-3	-2	-1	0	+1	+2	+3

TRUCKACCEP

Disgusted						Acceptance
-3	-2	-1	0	+1	+2	+3

TRUCKLOVE

Hateful						Love
-3	-2	-1	0	+1	+2	+3

TRUCKJOY

Sorrow						Joy
-3	-2	-1	0	+1	+2	+3

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Please use the scale to indicate the responses that best describes your BELIEFS about truck drivers.

Truck drivers are:

TRUCKWISE

Foolish						Wise
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

TRUCKPERFE

Imperfect						Perfect
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

TRUCKBENEF

Harmful						Beneficial
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

TRUCKUSEFU

Useless						Useful
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

TRUCKSAFE

Unsafe						Safe
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

TRUCKVALUA

Worthless						Valuable
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

TRUCKWHOLE

Unhealthy						Wholesome
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

Please respond on each of the following scales that best describes your overall attitude about truck drivers.

My overall attitude toward truck drivers is:

TRUCKPOSIT

Negative -3	-2	-1	0	+1	+2	Positive +3

TRUCKGOOD

Bad -3	-2	-1	0	+1	+2	Good +3

TRUCKLIKE

Dislike -3	-2	-1	0	+1	+2	Like +3

TRUCKDESIR

Undesirable -3	-2	-1	0	+1	+2	Desirable +3

TRUCMETAFF To what extent do you think your attitude toward truck drivers is driven by your feelings?

Not at all driven by my feelings -3	-2	-1	0	+1	+2	Totally driven by my feelings +3

TRUCMETCOG To what extent do you think your attitude toward truck drivers is driven by your beliefs?

Not at all driven by my beliefs -3	-2	-1	0	+1	+2	Totally driven by my beliefs +3

Please use the scale to indicate the response that best describes your FEELINGS about Britney Spears.

Thinking of Britney Spears makes me feel:

BRITNDELIG

Sad						Delighted
-3	-2	-1	0	+1	+2	+3

BRITHAPPY

Annoyed						Happy
-3	-2	-1	0	1	2	3

BRITCALM

Tense						Calm
-3	-2	-1	0	+1	+2	+3

BRITEXCIT

Bored						Excited
-3	-2	-1	0	+1	+2	+3

BRITRELAX

Angry						Relaxed
-3	-2	-1	0	+1	+2	+3

BRITACCEP

Disgusted						Acceptance
-3	-2	-1	0	+1	+2	+3

BRITLOVE

Hateful						Love
-3	-2	-1	0	+1	+2	+3

BRITJOY

Sorrow						Joy
-3	-2	-1	0	+1	+2	+3

Please use the scale to indicate the responses that best describes your BELIEFS about Britney Spears.

Britney Spears is:

BRITWISE

Foolish						Wise
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

BRITPERFEC

Imperfect						Perfect
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

BRITBENEFI

Harmful						Beneficial
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

BRITUSEFUL

Useless						Useful
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

BRITSAFE

Unsafe						Safe
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

BRITVALUA

Worthless						Valuable
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

BRITWHOLE

Unhealthy						Wholesome
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

Please respond on each of the following scales that best describes your overall attitude about Britney Spears.

My overall attitude toward Britney Spears is:

BRITPOSITI

Negative **-3**	**-2**	**-1**	**0**	**+1**	**+2**	Positive **+3**

BRITGOOD

Bad **-3**	**-2**	**-1**	**0**	**+1**	**+2**	Good **+3**

BRITLIKE

Dislike **-3**	**-2**	**-1**	**0**	**+1**	**+2**	Like **+3**

BRITDESIR

Undesirabl e **-3**	**-2**	**-1**	**0**	**+1**	**+2**	Desirable **+3**

BRITMETAFF To what extent do you think your attitude toward Britney Spears is driven by your feelings?

Not at all driven by my feelings **-3**	**-2**	**-1**	**0**	**+1**	**+2**	Totally driven by my feelings **+3**

BRITMETACO To what extent do you think your attitude toward Britney Spears is driven by your beliefs?

Not at all driven by my beliefs **-3**	**-2**	**-1**	**0**	**+1**	**+2**	Totally driven by my beliefs **+3**

Please use the scale to indicate the response that best describes your FEELINGS about American President Barack Obama

Thinking of American President Barack Obama makes me feel:

OBAMADELIG

Sad						Delighted
-3	-2	-1	0	+1	+2	+3

OBAMAHAPPY

Annoyed						Happy
-3	-2	-1	0	1	2	3

OBAMACALM

Tense						Calm
-3	-2	-1	0	+1	+2	+3

OBAMAEXCIT

Bored						Excited
-3	-2	-1	0	+1	+2	+3

OBAMARELAX

Angry						Relaxed
-3	-2	-1	0	+1	+2	+3

OBAMAACCEP

Disgusted						Acceptance
-3	-2	-1	0	+1	+2	+3

OBAMALOVE

Hateful						Love
-3	-2	-1	0	+1	+2	+3

OBAMAJOY

Sorrow						Joy
-3	-2	-1	0	+1	+2	+3

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Please use the scale to indicate the responses that best describes your BELIEFS about American President Barack Obama.

American President Barack Obama is:

OBAMAWISE

Foolish						Wise
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

OBAMAPERFE

Imperfect						Perfect
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

OBAMABENEF

Harmful						Beneficial
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

OBAMAUSEFU

Useless						Useful
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

OBAMASAFE

Unsafe						Safe
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

OBAMAVALUA

Worthless						Valuable
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

OBAMAWHOLE

Unhealthy						Wholesome
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

Please respond on each of the following scales that best describes your overall attitude about American President Barack Obama.

My overall attitude toward American President Barack Obama is:

OBAMAPOSIT

Negative						Positive
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

OBAMAGOOD

Bad						Good
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

OBAMALIKE

Dislike						Like
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

OBAMADESIR

Undesirable						Desirable
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

OBAMETAFF To what extent do you think your attitude toward American President Barack Obama is driven by your feelings?

Not at all driven by my feelings						Totally driven by my feelings
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

OBAMETCOG To what extent do you think your attitude toward American President Barack Obama is driven by your beliefs?

Not at all driven by my beliefs						Totally driven by my beliefs
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

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Please use the scale to indicate the response that best describes your FEELINGS about Tom Cruise.

Thinking of Tom Cruise makes me feel:

TOMDELIGHT

Sad						Delighted
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

TOMHAPPY

Annoyed						Happy
-3	**-2**	**-1**	**0**	**1**	**2**	**3**

TOMCALM

Tense						Calm
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

TOMEXCIT

Bored						Excited
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

TOMRELAX

Angry						Relaxed
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

TOMACCEP

Disgusted						Acceptance
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

TOMLOVE

Hateful						Love
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

TOMJOY

Sorrow						Joy
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

Please use the scale to indicate the responses that best describes your BELIEFS about Tom Cruise.

Tom Cruise is:

TOMWISE

Foolish						Wise
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

TOMPERFECT

Imperfect						Perfect
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

TOMBENEF

Harmful						Beneficial
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

TOMUSEFUL

Useless						Useful
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

TOMSAFE

Unsafe						Safe
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

TOMVALUA

Worthless						Valuable
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

TOMWHOLE

Unhealthy						Wholesome
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

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Please respond on each of the following scales that best describes your overall attitude about Tom Cruise.

My overall attitude toward Tom Cruise is:

TOMPOSIT

Negative -3	-2	-1	0	+1	+2	Positive +3

TOMGOOD

Bad -3	-2	-1	0	+1	+2	Good +3

TOMLIKE

Dislike -3	-2	-1	0	+1	+2	Like +3

TOMDESIR

Undesirable -3	-2	-1	0	+1	+2	Desirable +3

TOMETAFF To what extent do you think your attitude toward Tom Cruise is driven by your feelings?

Not at all driven by my feelings -3	-2	-1	0	+1	+2	Totally driven by my feelings +3

TOMETCOG To what extent do you think your attitude toward Tom Cruise is driven by your beliefs?

Not at all driven by my beliefs -3	-2	-1	0	+1	+2	Totally driven by my beliefs +3

Please use the scale to indicate the response that best describes your FEELINGS about scientists.

Thinking of scientists makes me feel:

SCIENDELIG

Sad						Delighted
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

SCIENHAPPY

Annoyed						Happy
-3	**-2**	**-1**	**0**	**1**	**2**	**3**

SCIENCALM

Tense						Calm
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

SCIENEXCIT

Bored						Excited
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

SCIENRELAX

Angry						Relaxed
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

SCIENACCEP

Disgusted						Acceptance
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

SCIENLOVE

Hateful						Love
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

SCIENJOY

Sorrow						Joy
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

Please use the scale to indicate the responses that best describes your BELIEFS about scientists.

Scientists are:

SCIENWISE

Foolish						Wise
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

SCIENPERFE

Imperfect						Perfect
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

SCIENBENEF

Harmful						Beneficial
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

SCIENUSEFU

Useless						Useful
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

SCIENSAFE

Unsafe						Safe
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

SCIENVALUA

Worthless						Valuable
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

SCIENWHOLE

Unhealthy						Wholesome
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

Please respond on each of the following scales that best describes your overall attitude about scientists.

My overall attitude toward scientists is:

SCIENPOSIT

Negative -3	-2	-1	0	+1	+2	Positive +3

SCIENGOOD

Bad -3	-2	-1	0	+1	+2	Good +3

SCIENLIKE

Dislike -3	-2	-1	0	+1	+2	Like +3

SCIENDESIR

Undesirable -3	-2	-1	0	+1	+2	Desirable +3

SCIEMETAFF To what extent do you think your attitude toward scientists is driven by your feelings?

Not at all driven by my feelings -3	-2	-1	0	+1	+2	Totally driven by my feelings +3

SCIEMETCOG To what extent do you think your attitude toward scientists is driven by your beliefs?

Not at all driven by my beliefs -3	-2	-1	0	+1	+2	Totally driven by my beliefs +3

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In this task, you will read descriptions of different people and then answer some questions about what you have read.

CAROLDESC Please read carefully the subsequent series of sentences about Carol.

"*Carol is often regarded as a kind and sympathetic person. She tends to be warm with others. According to her friends, her best characteristic is honesty. Moreover, she likes friendship and she usually goes out with her peers*".

On the basis of what you have read, please answer the following questions about Carol.

CAROL1 In general, how bad or good a person do you think Carol might be?
- ○ Very Bad (-3)
- ○ Bad (-2)
- ○ Somewhat Bad (-1)
- ○ Neither Bad nor Good (0)
- ○ Somewhat Good (1)
- ○ Good (2)
- ○ Very Good (3)

CAROL2 In general, how negative or positive is your impression of Carol?
- ○ Very Negative (-3)
- ○ Negative (-2)
- ○ Somewhat Negative (-1)
- ○ Neither Negative nor Positive (0)
- ○ Somewhat Positive (1)
- ○ Positive (2)
- ○ Very Positive (3)

CAROL3 How much do you think you would like Carol?
- ○ Dislike her very much (-3)
- ○ Dislike her (-2)
- ○ Dislike her a little (-1)
- ○ Neither dislike nor like (0)
- ○ Like her a little (1)
- ○ Like her (2)
- ○ Like her very much (3)

CAROL4 How unfavorable or favorable is your impression of Carol?
- ○ Very Unfavorable (-3)
- ○ Unfavorable (-2)
- ○ Somewhat Unfavorable (-1)
- ○ Neither Unfavorable nor Favorable (0)
- ○ Somewhat Favorable (1)
- ○ Favorable (2)
- ○ Very Favorable (3)

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AMBDESC Please read carefully the subsequent series of sentences about Amber.
"*Amber is often regarded as an organized and industrious person. She tends to be self-disciplined. According to her friends, her best characteristic is her intelligence. Moreover, she is reflective and inquisitive all the time*".
On the basis of what you have read, please answer the following questions about Amber.

AMBER1 In general, how bad or good a person do you think Amber might be?
- ○ Very Bad (-3)
- ○ Bad (-2)
- ○ Somewhat Bad (-1)
- ○ Neither Bad nor Good (0)
- ○ Somewhat Good (1)
- ○ Good (2)
- ○ Very Good (3)

AMBER2 In general, how negative or positive is your impression of Amber?
- ○ Very negative (-3)
- ○ Negative (-2)
- ○ Somewhat Negative (-1)
- ○ Neither Negative nor Positive (0)
- ○ Somewhat positive (1)
- ○ Positive (2)
- ○ Very positive (3)

- ○ **AMBER3** How much do you think you would like Amber?
- ○ Dislike her very much (-3)
- ○ Dislike her (-2)
- ○ Dislike her a little (-1)
- ○ Neither Like nor Dislike (0)
- ○ Like her a little (1)
- ○ Like her (2)
- ○ Like her very much (3)

- ○ **AMBER4** How unfavorable or favorable is your impression of Amber?
- ○ Very Unfavorable (-3)
- ○ Unfavorable (-2)
- ○ Somewhat Unfavorable (-1)
- ○ Neither Unfavorable nor Favorable (0)
- ○ Somewhat Favorable (1)
- ○ Favorable (2)
- ○ Very Favorable (3)

LISADESC Please read carefully the subsequent series of sentences about Lisa.

"*Lisa is often regarded as a sullen and unsympathetic person. She sometimes tends to be cold with others. According to her friends, her most important characteristic is to focus on her own interests. She would rather stay home alone than go out with her peers*".

On the basis of what you have read, please answer the following questions about Lisa.

LISA1 In general, how bad or good a person do you think Lisa might be?
- ○ Very Bad (-3)
- ○ Bad (-2)
- ○ Somewhat Bad (-1)
- ○ Neither Bad Nor Good (0)
- ○ Somewhat Good (1)
- ○ Good (2)
- ○ Very Good (3)

LISA2 In general, how negative or positive is your impression of Lisa?
- ○ Very Negative (-3)
- ○ Negative (-2)
- ○ Somewhat Negative (-1)
- ○ Neither Negative nor Positive (0)
- ○ Somewhat Positive (1)
- ○ Positive (2)
- ○ Very Positive (3)

LISA3 How much do you think you would like Lisa?
- ○ Dislike her very much (-3)
- ○ Dislike her (-2)
- ○ Dislike her a little (-1)
- ○ Neither dislike nor like (0)
- ○ Like her a little (1)
- ○ Like her (2)
- ○ Like her very much (3)

LISA4 How unfavorable or favorable is your impression of Lisa?
- ○ Very Unfavorable (-3)
- ○ Unfavorable (-2)
- ○ Somewhat Unfavorable (-1)
- ○ Neither Unfavorable nor Favorable (0)
- ○ Somewhat Favorable (1)
- ○ Favorable (2)
- ○ Very Favorable (3)

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SAMDESC Please read carefully the subsequent series of sentences about Samantha:

"Samantha is often regarded as a disorganized and inefficient person. She tends to be undisciplined. According to her friends, her best characteristic is her impulsiveness. She doesn't like to find out new solutions, but prefers conventional answers".

On the basis of what you have read, please answer the following questions about Samantha:

SAM1 In general, how bad or good a person do you think Samantha might be?
○ Very Bad (-3)
○ Bad (-2)
○ Somewhat Bad (-1)
○ Neither Bad nor Good (0)
○ Somewhat Good (1)
○ Good (2)
○ Very Good (3)

SAM2 In general, how negative or positive is your impression of Samantha?
○ Very Negative (-3)
○ Negative (-2)
○ Somewhat Negative (-1)
○ Neither Negative nor Positive (0)
○ Somewhat Positive (1)
○ Positive (2)
○ Very Positive (3)

SAM3 How much do you think you would like Samantha?
○ Dislike her very much (-3)
○ Dislike her (-2)
○ Dislike her a little (1)
○ Neither dislike nor like (0)
○ Like her a little (1)
○ Like her (2)
○ Like her very much (3)

SAM4 How unfavorable or favorable is your impression of Samantha?
○ Very Unfavorable (-3)
○ Unfavorable (-2)
○ Somewhat Unfavorable (-1)
○ Neither Unfavorable nor Favorable (0)
○ Somewhat Favorable (1)
○ Favorable (2)
○ Very Favorable (3)

EVALRATE In this task, please evaluate how positive or negative each of the following attributes is when forming an impression of others.

DETERMINED Determined	❍	❍	❍	❍	❍	❍	❍
INTELLIGENT Intelligent	❍	❍	❍	❍	❍	❍	❍
SKILLFUL Skillful	❍	❍	❍	❍	❍	❍	❍
PERSISTENT Persistent	❍	❍	❍	❍	❍	❍	❍
WASTEFUL Wasteful	❍	❍	❍	❍	❍	❍	❍
FOOLISH Foolish	❍	❍	❍	❍	❍	❍	❍
UNIMAGIN Unimaginative	❍	❍	❍	❍	❍	❍	❍
IRRESPONSI Irresponsible	❍	❍	❍	❍	❍	❍	❍
SOCIABLE Sociable	❍	❍	❍	❍	❍	❍	❍
HAPPY Happy	❍	❍	❍	❍	❍	❍	❍
WARM Warm	❍	❍	❍	❍	❍	❍	❍
HOMOUROUS Homourous	❍	❍	❍	❍	❍	❍	❍
HOMOURLESS Homourless	❍	❍	❍	❍	❍	❍	❍
PESSIMISTIC Pessimistic	❍	❍	❍	❍	❍	❍	❍
IRRITABLE Irritable	❍	❍	❍	❍	❍	❍	❍
COLD Cold	❍	❍	❍	❍	❍	❍	❍

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Q18 Thank you for participating in this experiment. Before describing our hypothesis, did you have any ideas about hypotheses that we could, should or would test in these studies? Did any ideas pop into your mind as you went through the tasks?

Information Sheet

Thank you for participating in this experiment. This document describes why your participation is valuable. First, why do we need experiments to tell us anything about human behaviour? The basic features of any experiment are the manipulation of certain variables (we call these "independent variables") and the measurement of other variables ("dependent variables"). You can look at independent variables as <u>causes</u> and dependent variables as <u>effects</u>. This brings us to the major purpose of experiments: they allow us to make cause-effect statements.

For example, in this experiment, we are interested in the degree to which different people might rely upon different sources of information when making judgments about others. In this study, participants are presented with competence-traits and warmth-related traits, and are asked to rate these traits. We are interested in comparing the ratings that participants give to these traits. We expect that individual differences can influence the evaluation of these traits, such that people who are higher in affective orientation rate warmth-related traits more positively, while people who are higher in cognitive orientation rate competence-related traits more positively. Further, we expect that these trait ratings influence the evaluation of different people described as warm, cold, competent and incompetent.

As noted in your consent form, your name is not recorded or associated with your responses. Thank you again for participating in this study. If you wish to learn more about this study, please do not hesitate to contact us in the School of Psychology.

With thanks,

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Relevant Readings

Haddock, G., Maio, G. R., Arnold, K., & Huskinson, T. (2008). Should persuasion be affective or cognitive? The moderating effects of need for affect and need for cognition. *Personality and Social Psychology Bulletin*, *34*, 769-778.

Maio, G. R., & Esses, V. M. (2001). The need for affect: Individual differences in the motivation to approach or avoid emotions. *Journal of Personality*, *69*, 583-614.

Supplementary Table 1

Study 2: Regression table with standardized coefficients for the separate indices of NFA,

NFC, structural bases, meta-bases, and attitudes outcomes

Variables	Warm	Cold	Competent	Incompetent	Mean difference warm-cold	Mean difference competent-incompetent
NFA	.28**	-.23*	-.02	-.06	.30**	.03
NFC	-.04	.03	.20*	-.14	-.04	.23*
Affective bases	.01	.02	-.29**	-.08	-.01	-.15
Cognitive bases	.08	-.14	.00	.05	.13	-.04
Affective meta-bases	.00	-.08	.07	-.04	.06	.07
Cognitive meta-bases	.14	.10	-.15	.10	.00	-.17

Note: *p < .05; **p < .01

Supplementary Table 2

Study 3: Regression table with standardized coefficients for the separate indices of NFA,

NFC, structural bases, meta-bases, and attitudes outcomes

Variables	Warm	Cold	Competent	Incompetent	Mean difference warm-cold	Mean difference competent-incompetent
NFA	.11	-.20**	-.01	.08	.20**	-.07
NFC	.01	.22**	.30***	-.08	-.16**	.24**
Affective bases	.14	-.20**	.12	-.04	.21**	.10
Cognitive bases	.11	-.12	.15*	-.11	.14*	.17**
Affective meta-bases	.07	-.08	.10	-.05	.09	.09
Cognitive meta-bases	.01	-.01	.09	-.02	.01	.07

Note: *p < .05; **p < .01, *** p < .001

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STUDY 1

Ratings of warm traits

NFA, β = .43, $t(57)$ = 3.58, p = .001

NFC, β = .14, $t(57)$ = 1.19, p = .24

Ratings of cold traits

NFA, β = -.29, $t(57)$ = -2.31, p = .02

NFC, β = .08, $t(57)$ = .64, p = .52

Ratings of competent traits

NFA, β = -.16, $t(57)$ = -1.64, p = .11

NFC, β = .63, $t(57)$ = 6.25, p < .001

Ratings of incompetent traits

NFA, β = .27, $t(57)$ = 2.39, p =.02

NFC, β = -.44, $t(57)$ = -3.95, p < .001

Difference warm-cold trait rankings

NFA, β = .54, $t(57)$ = 5.95, p < .001

NFC, β = -.45, $t(57)$ = -4.86, p < .001

Difference competent-incompetent trait rankings

NFA, β = -.31, $t(57)$ = -2.72, p = .001

NFC, β = .41, $t(57)$ = 3.61, p = .001

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STUDY 2

Warm person attitude

NFA, β = .30, $t(105)$ = 3.22, p = .002

NFC, β = -.10, $t(105)$ = -1.01, p = .31

Structural bases, β = .00, $t(105)$ = .01, p = .99

Meta-bases, β = -.07, $t(105)$ = -.69, p = .49

Cold person attitude

NFA, β = -.23, $t(105)$ = -2.37, p = .02

NFC, β = .02, $t(105)$ = .19, p = .85

Structural bases, β = .09, $t(105)$ = .96, p = .34

Meta-bases, β = -.08, $t(105)$ = -.85, p = .39

Competent person attitude

NFA, β = -.03, $t(105)$ = -.34, p = .73

NFC, β = .21, $t(105)$ = 2.21, p = .03

Structural bases, β = -.18, $t(105)$ = -1.94, p = .05

Meta-bases, β = .11, $t(105)$ = 1.18, p = .24

Incompetent person attitude

NFA, β = -.02, $t(105)$ = -.24, p = .81

NFC, β = -.21, $t(105)$ = -2.12, p = .04

Structural bases, β = -.03, $t(105)$ = -.28, p = .78

Meta-bases, β = -.10, $t(105)$ = -.99, p = .32

Difference warm-cold targets attitudes

NFA, β = .32, t (105) = 3.40, p = .001

NFC, β = -.08, t(105) = -.81, p = .42

Structural bases, β = -.05, t(105) = -.54, p = .59

Meta-bases, β = .02, t(105) = .18, p = .86

Difference competent-incompetent targets attitudes

NFA, β = -.01, t (105) = -.07, p = .94

NFC, β = .29, t (105) = 3.01, p = .003

Structural bases, β = -.11, t(105) = -1.16, p = .25

Meta-bases, β = .14, t(105) = 1.51, p = .13

Question "How much more do you like Carol (warm) compared to Lisa (cold) ?"

NFA, β = .23, t (105)= 2.43, p = .02

NFC, β = -.11, t (105) = -1.19, p = .24

Structural bases, β = .12, t(105) = 1.30, p = .20

Meta-bases, β = -.12, t(105) = -1.23, p = .22

Question "How much more do you like Amber (competent) compared to Samantha (incompetent)?"

NFA, β = -.09, t (105)= -.90, p = .37

NFC, β = .20, t (105) = 2.06, p = .04

Structural bases, β = -.09, t(105) = -.91, p = .36

Meta-bases, β = .05, t(105) = .53, p = .60

STUDY 3

Ratings of warm traits

NFA, β = .30, *t*(191) = 4.26, *p* < .001

NFC, β = -.05, *t*(191) = -.72, *p* = .47

Structural bases, β = .01, *t*(191) = .22, *p* = .82

Meta-bases, β = .01, *t*(191) = .17, *p* = .86

Ratings of cold traits

NFA, β = -.19, *t*(191) = -2.57, *p* = .01

NFC, β = -.02, *t*(191) = -.23, *p* = .81

Structural bases, β = -.03, *t*(191) = -.41, *p* = .68

Meta-bases, β = -.09, *t*(191) = -1.27, *p* = .20

Ratings of competent traits

NFA, β = .11, *t*(191) = 1.53, *p* = .13

NFC, β = .24, *t*(191) = 3.44, *p* < .001

Structural bases, β = .08, *t*(191) = 1.17, *p* = .24

Meta-bases, β = -.06, *t*(191) = -.91, *p* = .37

Ratings of incompetent traits

NFA, β = -.07, *t*(191) = -1.05, *p* = .29

NFC, β = -.24, *t*(191) = -3.41, *p* < .001

Structural bases, β = -.09, *t*(191) = -1.29, *p* = .20

Meta-bases, β = -.02, *t*(191) = -.26, *p* = .79

Warm person attitude

NFA, *β* = .14, *t*(191) = 1.88, *p* = .06

NFC, β = .05, *t*(191) = .67, *p* = .50

Structural bases, β = .00, *t*(191) = .06, *p* = .95

Meta-bases, β = .01, *t*(191) = .18, *p* = .86

Cold person attitude

NFA, β = -.23, *t*(191) = -3.22, *p* = .002

NFC, β = .18, *t*(191) = 2.44, *p* = .01

Structural bases, β = -.02, *t*(191) = -.36, *p* = .72

Meta-bases, β = -.01, *t*(191) = -.15, *p* = .88

Competent person attitude

NFA, β = .03, *t*(191) = .37, *p* = .71

NFC, β = .35, *t*(191) = 4.97, *p* < .001

Structural bases, β = -.03, *t*(191) = -.47, *p* = .64

Meta-bases, β = -.02, *t*(191) = -.31, *p* = .76

Incompetent person attitude

NFA, β = .06, *t*(191) = .88, *p* = .38

NFC, β = -.11, *t*(191) = -1.45, *p* = .15

Structural bases, β = .04, *t*(191) = .64, *p* = .52

Meta-bases, β = .00, *t*(191) = -.01, *p* = .99

Difference warm-cold targets attitudes

NFA, β = .24, t(191) = 3.27, p = .001

NFC, β = -.11, t (105) = -1.49, p = .14

Structural bases, β = .02, t(105) = .29, p = .77

Meta-bases, β = .01, t(105) = .20, p = .84

Difference competent-incompetent targets attitudes

NFA, β = -.03, t (105) = -.45, p = .65

NFC, β = .28, t(191) = 3.96, p < .001

Structural bases, β = -.05, t(105) = -.75, p = .45

Meta-bases, β = -.01, t(105) = .17, p = .86