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**Sympathy and Tenderness as Components of Dispositional Empathic Concern:  
Predicting Helping and Caring Behaviors**

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### Abstract

Recently, empathic concern was separated into the components of sympathy and tenderness (Lishner, Batson, & Huss, 2011). So far, these two emotional experiences have been assessed as episodic emotional responses, as the existent dispositional measures remain blind to such distinction. The aim of the present research is to develop and validate a dispositional measure that captures the personal disposition to feel sympathy, tenderness, and personal distress. This new scale is called Sympathy, Tenderness and Distress Dispositional Scale (SyTeD). In Study 1, we developed and tested the internal consistency and factor structure of the English version of the scale in the United States. In Study 2, we translated the scale into Spanish and tested its content and criterion validity in Spain. In Study 3, we tested the predictive validity of the sympathy-tenderness distinction within a helping vs. a care-based scenario in the United Kingdom (SyTeD-English version). In Study 4, we tested the predictive validity of the sympathy-tenderness distinction in a real helping situation in Spain (SyTeD-Spanish version). The results across these four studies suggest that the SyTeD is a useful measure of dispositional sympathy and tenderness that allows studying further different types of prosocial behavior (i.e., help vs. care).

*Keywords:* sympathy; tenderness, personal distress; care; help; questionnaire.

### **Sympathy and Tenderness as components of dispositional empathic concern: Predicting helping and caring behaviors**

Empathic concern refers to other-oriented emotions elicited by and congruent with the perceived welfare of someone in need (Batson, 1991, 2011). Lishner, Batson, and Huss (2011) showed from a situational perspective how empathic concern is comprised of two different emotions: sympathy and tenderness. These authors based this distinction on the appraisal theories (e.g., Scherer, 1984), which suggest that different emotions may be activated depending on the way situations may be appraised. Thus, Lishner et al. (2011) showed that sympathy was linked to the appraisal of current need, whereas tenderness was connected to the appraisal of vulnerability.

Current need is perceived when we observe a discrepancy in another person's well-being; for instance, when perceiving someone in physical pain, experiencing negative affect, being in danger or suffering from a disease. On the other hand, vulnerability is related to observer perceptions about the person's ability to solve different need situations and hence being susceptible to future well-being discrepancies and to vulnerability heuristics such as perceptions of weakness or defenselessness (e.g., Eibl-Eibesfeldt, 1971; Lishner, Ocejka, Stocks, & Zaspel, 2008; Lorenz, 1971); for instance, we may experience tenderness when perceiving a child or a puppy running and playing in the park.

Although there may be different lay and semantic definitions of tenderness (Oxford English dictionary, 2014), we will focus on the existing literature where such emotional experience has been assessed empirically and defined as linked to the impulse towards caregiving (Frijda, 1986; Kalawski, 2010). As acknowledged by Lishner et al. (2011) tenderness can be activated on its own when perceiving a potentially vulnerable target such as a child or a puppy. However, sympathy tends to co-occur with tenderness as current need

involves also acute vulnerability. For instance, if we encounter an adult with an injury we may experience sympathy as the person presents a current need (i.e., injury) but also tenderness as the person may be weak or helpless.

It is important to study further the sympathy-tenderness distinction for different reasons. Firstly, it will help to expand the research on empathic concern and, more importantly, it will help to clarify the construct, as different authors have defined the construct including different components such as perspective taking (e.g., Dymond, 1949) or emotion contagion (e.g., Mehrabian & Epstein, 1972). Secondly, understanding what evokes empathic concern at a dispositional level may have important motivational consequences as it may help to better understand what drives altruistic prosocial behavior (Batson, 1991; 2011). Finally, separating sympathy and tenderness will provide a more fine-grained explanation not only of the motivation but also on the type of prosocial behavior each emotion is associated with.

### **Sympathy and tenderness as episodic emotions and dispositions**

The sympathy-tenderness distinction was firstly approached from a situational perspective. Shaver, Schwartz, Kirson, and O'Connor (1987) asked lay-people to categorize different emotion terms, including sympathy and tenderness, in different categories. Shaver and colleagues found that whereas sympathy was categorized most of the time in the category "sadness", tenderness was categorized in the category "love". More recently, Niezink, Siero, Dijkstra, Buunk, and Barelds (2012) analyzed in nine studies through exploratory and confirmatory factor analyses the Empathic Response Questionnaire (Batson, Fultz, & Schoenrade, 1987), which comprises six emotion terms to assess empathic concern, showing that the scale was actually formed by two different subscales: sympathy (i.e., *compassionate*, *sympathetic*, and *moved*) and tenderness (i.e., *tender*, *warm*, and *softhearted*).

Although sympathy and tenderness have been assessed from a situational perspective, this distinction has never been addressed from a dispositional approach. Research on dispositional measures tends to focus on the distinction between empathic concern and personal distress (Davis, 1983; Davis et al., 1999; Penner et al., 1995; Carlo, Eisenberg, Troyer, Switzer, & Speer, 1991; Davis, Hall, & Meyer, 2003; Eisenberg et al., 1989). The canonic example of this dispositional view of empathic concern and personal distress is the Interpersonal Reactivity Index (IRI; Davis, 1980), which is one of the most used measures. The IRI has two cognitive scales (Perspective Taking and Fantasy) and two affective scales (Empathic Concern and Personal Distress). A number of other instruments have been developed using a similar strategy in different cultures, such as in Spain (Vicarious Emotional Scale, VES; Ocejja, López-Pérez, Ambrona, & Fernandez, 2009) and Belgium (Vicarious Distress Questionnaire, VDQ; Grynberg, Heeren, & Luminet, 2012). Note, however, that none of these instruments take into account the tenderness-sympathy distinction. For example, the Empathic Concern (EC) subscale in the IRI measures other-oriented feelings of compassion, concern, and tenderness when perceiving a victim in need (e.g., *I often have tender, concerned feelings for people less fortunate than me*). Therefore, this subscale collapses both affects into a single measure.

Whereas the situational assessment evaluates what the person is experiencing when facing victims in a particular need situation (e.g., an adult vs. a child with an injured leg), the dispositional approach will allow us to better predict the person's willingness to respond prosocially in different contexts of need and towards different victims. Furthermore, approaching the sympathy-tenderness distinction from a dispositional perspective it will help to clarify the relation between empathic concern and other personality variables.

Following Lishner et al. (2011)'s approach, we want to point out the difference between "giving or providing in a specific moment and situation what is necessary to satisfy a person's need" which is linked to sympathy and "to watch over and feel responsible for a person's state through a period of time", which is linked to tenderness. From now on we will use the terms *help* and *care* as labels (i.e., terms used to refer to different phenomena). We suggest that (a) a disposition to feel sympathy may promote behavior directed to *help* (e.g., donating money to cure injured dogs), whereas (b) a disposition to feel tenderness may promote behavior directed to *care* (e.g., donating money to foster puppies). However, these dispositions may not be mutually exclusive because tenderness may be provoked either by chronic vulnerability or by acute vulnerability, and sympathy can be evoked by acute vulnerability (Lishner et al., 2011).

In sum, we claim that introducing both distinctions, the help-care distinction at the behavioral level and the sympathy-tenderness at the dispositional level will enrich research on vicarious emotions and prosocial behavior as it will allow us to predict better what kind of prosocial action a person may take and what affective process underlie such action. We test this claim through three steps. First, we develop a new instrument (SyTeD) that contains three subscales to measure the dispositions to feel sympathy, tenderness, and personal distress, incorporating the sympathy-tenderness distinction into this dispositional measure. We test SyTeD's psychometric properties in three cultural contexts (United States, Spain, and the United Kingdom, Studies 1, 2 and 3, respectively) and two different languages (i.e., English and Spanish). Second, in Study 3, we test the validity of the sympathy-tenderness distinction in predicting preference to help those who suffer from a current and acute need (Sympathy-Help) or to attend to those who are in a chronically vulnerable state (Tenderness-Care). Finally, in Study 4, we test whether dispositional sympathy (but not dispositional tenderness)

predicts helping in a different need-relevant context. Furthermore, we tested whether, in line with Lishner et al. (2011)'s proposal, this behavior is mediated by the situational sympathy (but not situational tenderness) felt towards the victim.

### **Study 1: Scale Construction in English**

The main objective of Study 1 was to distinguish the two components of empathic concern at a dispositional level: sympathy and tenderness. Although the present research was not focused on personal distress, we also included this subscale in order to facilitate discrimination between affective responses.

### **Hypotheses**

We expected a three-factor solution for the scale. Moreover, we expected that sympathy and tenderness factors would positively correlate significantly because they are part of the concept of empathic concern (see Lishner et al., 2011). We expected no positive correlation between the tenderness or sympathy factors and the personal distress factor, as whereas tenderness and sympathy are other-oriented emotions, personal distress is self-oriented (Batson, 2011).

### **Method**

**Participants.** In two different phases, a total of 117 English native speakers and Psychology undergraduate students from a university in the south of the United States voluntarily participated in this study. Participants signed in the study through a participation pool and receive a credit for taking part in the study. First, 50 undergraduate students were divided into two subsamples: 40 participants for a focus group discussion (57% female, age range between 18 and 56,  $M = 25.39$ ,  $SD = 6.49$ ) and 10 for a categorization task (60%



female, age range between 18 and 22,  $M = 20.03$ ,  $SD = 1.34$ ). These data were used to create a draft of the SyTeD instrument. Second, 67 students (70% female, age range between 18 and 29,  $M = 18.85$ ,  $SD = 1.58$ ) completed the developed instrument.

### **Procedure**

*Design of a new measure: SyTeD.* We used definitions of sympathy, tenderness, and distress developed by Lishner et al., (2011) to construct a scale containing emotion adjectives for each construct. The definitions we used were as follows: (1) *sympathy* is a feeling that makes you focus on someone's suffering when knowing his/her current need; (2) *tenderness* is a feeling that evokes a caring attitude when you see/hear about a vulnerable person or animal; (3) *personal distress* is a feeling that makes you focus on your own feelings when seeing/hearing about another in distress or need.

In the first phase, eight focus groups were formed with five participants in each. Participants were provided with the three definitions noted above and asked to generate items that describe each construct that we aimed to assess (i.e., sympathy, tenderness, and personal distress). This procedure yielded 9, 15 and 11 items for sympathy, tenderness, and personal distress, respectively. Next, we asked 10 additional participants to complete a categorization task in which the 34 items developed during the focus-group sessions were to be placed into one of three categories (sympathy, tenderness, and personal distress). The results of this categorization task showed that there was a total agreement for five items within each category, that is, all judges agreed on their categorization. These 15 items formed the preliminary version of the SyTeD. Finally, in a second phase, 67 students completed the SyTeD. They were asked to indicate on a 7-point Likert scale (1 = Not at all, 7 = Extremely) the degree to which each of the 15 items described themselves.

## Results and discussion

We conducted a true factor analysis with Oblimin rotation that accounted for 57.58% of the total variance. We chose true factor analysis method as it allows discriminating between unique and shared variance between the different factors (Costello & Osborne, 2005; Mc Ardle, 1990). Regarding the rotation, we chose Oblimin as this method renders a more accurate solution considering the relationship among the different factors (Costello & Osborne, 2005). As we expected a relationship between tenderness and sympathy due to being components of the same emotional experience (i.e., empathic concern), we chose Oblimin as it is the most suitable solution.

This analysis showed a 3-factor solution. Three items obtained a factor weight lower than .30, so they were dropped. The remaining 12 items are presented in Table 1. Four items per factor designed to measure tenderness, personal distress, and sympathy weighted in the first, second, and third factor respectively with factor loadings above .60. Thus, the items loaded on the factors as expected, based on the results of the categorization task conducted by the judges. The three factors accounted 57.58% of the variance.

The three tenderness, sympathy, and personal distress scales showed adequate internal reliability;  $\alpha$ s = .83, .79 and .71, respectively. Correlation analyzes between the scales showed, as expected, that sympathy correlated significantly with tenderness,  $r(65) = .40$ ,  $p < .01$ . Neither sympathy nor tenderness correlated significantly with personal distress;  $rs(65) = -.03$  and  $-.06$ ,  $ps > .60$ , respectively.

We obtained a three-factor solution where items were grouped as expected. Furthermore, all the items showed good internal consistency and the correlation between scales showed that the factor labeled as tenderness was positively related to the factor label as

sympathy, and none of these factors were positively related to the factor labeled as personal distress.

### **Study 2: Scale adaptation into Spanish and validity testing**

Study 2 had two objectives. First, we adapted the English version of SyTeD into Spanish and attempted to replicate the factorial structure, the reliability indexes, and the pattern of correlations obtained in Study 1. Second, we tested the construct and criterion validity of the three subscales (sympathy, tenderness, and personal distress) by assessing their pattern of correlations with the Personal Distress and Empathic Concern scales of the IRI and the Marlowe-Crowne Social Desirability scale (Crowne & Marlowe, 1960).

### **Hypotheses**

First, we expected that tenderness and sympathy would correlate positively with EC because tenderness and sympathy have been defined as components of empathic concern. Second, we expected that the personal distress scales of each instrument would correlate positively with each other. Additionally, we tested whether sympathy, tenderness and personal distress correlated with social desirability. This scale was included because other scales related to empathic concern have demonstrated associations with social desirability (McGrath, Cann, & Konopasky, 1998).

### **Method**

**Participants.** One hundred and four Spanish native speakers voluntarily participated in this study (61% female, age ranged from 18 to 67 years,  $M = 30.84$ ,  $SD = 12.32$ ). Concerning their education level, 18% had basic education, 26% A levels or college education, 40% university degree, and 16% Master's degree. The sample was obtained from

several public libraries and participants were approached while in the reading room to assure participants may focus on the questions. Approximately 85% of the approached people agreed to participate in the study. We decided to recruit our sample outside the university in order to guarantee a more heterogeneous sample in terms of age and education background.

### **Procedure**

*Adaptation of the questionnaire into Spanish.* We followed a forward-backward translation to increase linguistic equivalence between the existing English version of the instrument designed in Study 1 and the new Spanish version used in this study. Each English item was previously translated into Spanish by a bilingual person and subsequently, another bilingual person translated the proposed Spanish version back into English. Finally, the two translations were provided to another two different bilinguals who carefully compared and discussed them in order to obtain a final Spanish version whose items were naturally expressed and meant essentially the same as the English version.

*Completion of the Study.* After accepting to take part in the study, participants signed a consent form. After that, participants completed a set of counterbalanced scales formed by: SyTeD, the two affective scales of the IRI in the Spanish version (Pérez-Albéniz, de Paúl, Etxeberría, Montes & Torres, 2003) (*Personal Distress*, PD onwards, which assesses ‘self-oriented’ feelings and the tendency to feel anxious when confronted with negative situations, e.g., *When I see someone who badly needs help in an emergency, I go to pieces*; and *Empathic Concern*, EC onwards, which assesses “other-oriented” feelings of sympathy and concern for unfortunate others, e.g., *When I see someone being taken advantage of, I feel kind of protective towards them*; on a 5-point Likert scale ranging from 1= not at all to 5=

extremely)<sup>1</sup>, and as a control the short Spanish version of the Marlowe-Crowne Social Desirability scale (MCSD; Ferrando & Chico, 2000) (10-item questionnaire to assess the tendency to give overly positive self-descriptions in a true-false response scale; e.g., *I am always willing to admit when I make a mistake*). Once participants finished they were fully debriefed.

## Results and Discussion

**Internal Structure of SyTeD.** We performed a Confirmatory Factor Analysis (CFA) with the WLSMV estimation method to test the fit of the three-factor structure obtained in Study 1. We used AMOS software in order to this. We used the following goodness-of-fit indices (GOF) for model fit assessment. The GOF indices used in this study were: (a) The Root Mean Square Error of Approximation (RMSEA); (b) the Comparative Fit Index (CFI); and (c) the Tucker-Lewis Index (TLI). RMSEA is considered acceptable at values lower than 0.06 (Hu & Bentler, 1999). CFI and TLI are considered to give evidence of acceptable fit at values over a .90 threshold (Bentler & Bonett, 1980), and an excellent fit at .95 (Hu & Bentler, 1999). The results for the three-factor solution showed a good fit (CFI = .99, TLI = .99, RMSEA = .02); see Figure 1. Furthermore, we also test whether a two-factor structure which may group the items of tenderness and sympathy in a factor and the items of personal distress in another factor may show a better fit than the three-factor solution. Results showed that the two-factor solution did not show an acceptable fit according to the different GOF indices (CFI = .72, TLI = .66, RMSEA = .15). We found the expected positive correlation between tenderness ( $\alpha = .87$ ) and sympathy ( $\alpha = .80$ ),  $r(102) = .32, p < .01$ . Neither of these

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<sup>1</sup> Due to time constraints (as participants completed the study without receiving any payment for their time) we did not include the cognitive scales of the IRI, as we expected more convergent correlations with the affective scales.

correlated significantly with the personal distress scale ( $\alpha = .77$ );  $r_s(102) = -.10$  and  $.16$ ,  $p_s > .10$ , respectively.

**Construct Validity.** All the correlations are presented in Table 2. Regarding the IRI, we calculated the correlations between the SyTeD scales and the scales of Empathic concern (EC;  $\alpha = .71$ ) and Personal distress (PD;  $\alpha = .72$ ). The results showed that tenderness correlated positively with EC and PD ( $r_s(102) = .42$  and  $.23$ ,  $p_s < .02$ , respectively), sympathy correlated with EC [ $r(102) = .62$ ,  $p < .001$ ], and the two scales of personal distress correlated with each other [ $r(102) = .26$ ,  $p < .01$ ]. None of these scales correlated significantly with social desirability;  $r_s(102) = -.05$ ,  $-.10$ ,  $-.01$ ,  $p_s > .50$ , respectively.

In this study, we replicated the obtained structure in the previous study. As expected, we obtained a three-factor solution. The scales showed good internal consistency and the same pattern of correlations obtained in Study 1. Concerning the relationships with the criteria (i.e., IRI and MCSD) results showed that both, tenderness and sympathy were positively related to EC, as expected given that tenderness and sympathy are two sides of the same construct, which is empathic concern; whereas personal distress was related to PD. Regarding the results with social desirability, we did not find any significant correlation with the SyTeD scales.. However, the lack of correlation may not indicate the lack of relationship between the scales. In this sense, it is possible that the size of the sample may be limited to draw a conclusion about it.

### **Study 3: Predicting Help and Care from the Disposition to Feel Sympathy and Tenderness**

In the previous studies, we have tested the construct and criterion validity, as well as the reliability of SyTeD in two different languages (English and Spanish) and hence, in two

different cultures. In Study 3, we tested whether the dispositions to feel sympathy and tenderness may predict help and care in a new cultural context (United Kingdom). To that end, we presented a fictional organization which had some spare funding and asked participants to decide how to distribute the money for two possible projects: one project related to addressing a current need (i.e., help) and the other project related to fostering a defenseless target (i.e., care). We included the affective scales of the IRI (i.e., empathic concern and personal distress) to compare its predictive validity against of the SyTeD.

### **Hypotheses**

We expected that the disposition to feel sympathy (as measured by the SyTeD) would predict the preference for allocating the money to the option most relevant to help, whereas the disposition to feel tenderness (as measured by the SyTeD) would predict the preference for allocating the money to the option most relevant to care. Because IRI's Empathic Concern subscale does not take into account the sympathy-tenderness distinction, we did not hypothesize a specific relationship with the allocation to one of the two projects.

### **Method**

**Participants.** Fifty-four psychology undergraduate students from a university of the southwest of England (45 women, age ranged from 18 to 42 years,  $M = 20.59$ ,  $SD = 4.08$ ) participated in this study in exchange for extra credit in a course.

**Procedure.** Participants completed the English version of SyTeD and the IRI in counterbalanced order. After that, each participant was escorted into a cubicle that contained a computer. Participants read an introduction to the study on *Qualtrics*, in which it was explained that they will be randomly assigned to read about an organization (out of many organizations involved in the study) devoted to providing support for various groups.

Actually, all the participants were presented the same organization called *Animalia*, which was devoted to supporting pets. Participants were told that there was some funding available that could be distributed between two different projects. One of the projects was called *project host*, which supported people who take care of puppies. This project was included as the option most relevant to a care-based action, as the project is focused on protecting a potentially vulnerable well-being, which may activate the appraisal of vulnerability linked to previous literature to tenderness (Lishner et al., 2011). The second one was *project need*, which supported people who help adult dogs suffering from painful arthritis. This project was included as the option most relevant to a helping-based action, as the project is focused on addressing a particular problem (i.e., painful arthritis), which may activate the appraisal of need which previous literature has linked to sympathy (Lishner et al., 2011).

After reading about the two different projects, participants completed a bipolar scale on which they reported their allocation preference. Participants chose one out of six options that expressed a strong, moderate, or weak preference for allocating funds to one of the two projects (allocating to it 90%, 75% or 60% of the available resources). The 50% / 50% option was excluded to force participants to express their preference for one of the two projects (help vs. care).

## Results and Discussion

Regarding content and criterion validity, the results showed the same pattern obtained in Studies 1 and 2 (see Table 1). The three factors accounted 59.36% of the variance. We found the expected positive correlation between tenderness ( $\alpha = .76$ ) and sympathy ( $\alpha = .77$ ),  $r(54) = .47, p < .001$ . Neither of these correlated significantly with the personal distress scale ( $\alpha = .72$ );  $r_s(54) = -.22$  and  $-.18, p_s > .14$ , respectively.



**Allocation choice.** We coded the allocation-choice variable as a 6-value continuum ranging from (1) clear preference for favoring the help project (assigning it the 90% of the total budget) to (6) clear preference for favoring the care project (assigning it the 90% of the total budget). Results suggest that Tenderness (SyTeD) and EC (IRI) were associated with preference for those alternatives that favor the care project ( $r(52) = .52$  and  $.34$ ,  $p < .01$ , respectively). In order to compare the predictive value of these scales, we regressed the allocation choice variable into Tenderness and EC (IRI), and the results showed that tenderness remained as a significant predictor,  $\beta = .65$ ,  $p < .001$ , whereas EC (IRI) did not,  $\beta = .28$ ,  $p = .22$ .

Overall, the help project was the favorite: 36 out of the 54 participants (66.7%) reported a clear, moderate, or relative preference for it. It should be noted that according to Lishner et al. (2011, p. 616)'s approach, perceiving adult dogs suffering from painful arthritis activates the appraisals of both current need and acute vulnerability, as the dog presents an illness and because of that, it is also vulnerable. Consequently, a project devoted to helping them can be favorably seen by those who have a disposition to feel sympathy, tenderness, or both, as it may activate the appraisal of need and vulnerability which are related to both sympathy and tenderness. In contrast, a project devoted to protecting vulnerable –but not in current need– pets may be preferred only by those who have a relatively stronger disposition to feel tenderness. As indicated by Lishner and colleagues (2011) it is possible to experience tenderness itself but it is difficult to experience sympathy without experiencing tenderness. In order to test whether a tendency to experience one emotion over the other may influence participants' choices, , we analyzed the data paying particular attention to a new predictor: the pattern of prevalence to feel sympathy-tenderness.

First, we created a dummy variable by subtracting participants' scores in the corresponding scales of SyTeD to create a disposition-prevalence score (prevalence of Tenderness = 0, prevalence of Sympathy = 1). We then followed the same logic for the allocation variable (preference for care project = 0, preference help project = 1). The results showed that all the 18 participants who preferred the care project had previously shown a stronger disposition to feel tenderness in the SyTeD. Among those 36 who preferred the help project, we found that 13 (36%) had shown a stronger disposition to feel tenderness and 23(64%) to feel sympathy  $\chi^2(1, 54) = 20.03, p < .001$ . These results support Lishner et al.'s (2011) findings, as participants who chose the care-based project reported a higher tendency to experience tenderness over sympathy. However, participants who chose the help-based project reported either a higher tendency to experience sympathy or a higher tendency to experience tenderness. This is explained by the fact that when presenting a victim in need the appraisal of need and vulnerability are activated and, therefore, it is possible to experience both sympathy and tenderness (Lishner et al., 2011).

#### **Study 4: Predicting Helping Behaviour from the SyTeD**

Study 4 had two objectives. Firstly, to test whether the dispositions, as measured by SyTeD, predicted vicarious emotions elicited in a real situation that was presented after a significant time delay. This time delay between the SyTeD and exposure to a need situation afforded us a stringent test of the SyTeD's predictive value while also ruling out hypothesis guessing and consistency confounds. Secondly, Study 4 allowed us to test whether personal disposition to feel sympathy predicted the actual sympathy felt when witnessing a person in need and whether this actual sympathy predicted helping towards that person.

#### **Hypotheses**

We expected that the dispositions measured by the SyTeD would predict their corresponding situational emotions elicited during a real need situation. We also expected that the disposition to feel sympathy measured by the SyTeD would predict helping behavior and that this association will be mediated by the sympathy actually felt in the need situation. This hypothesis is based on Lishner et al. (2011)'s reasoning that sympathy produces an altruistic motivation directed toward the ultimate goal of addressing the current need that evoked the sympathy. This motivation is often associated with helping behavior. Tenderness is expected to produce altruistic motivation directed toward the ultimate goal of addressing the target's vulnerability. Tenderness evoked by chronic vulnerability should create a desire to protect the other from a potential harm due to the vulnerability of the target. Rather than immediate helping, this motivation should promote more long-term forms of assistance, focused on protection and vigilance on behalf of the target (Lishner et al., 2011). In Study 4, we used an unexpected opportunity to help in a short-term, current need-driven situation. As such, we hypothesized that sympathy would be the most relevant component of empathic concern on this procedure.

## Method

**Participants.** Sixty psychology undergraduate students from a big university in Spain (9 men and 51 women) with ages between 17 and 24 years ( $M = 18.90$ ,  $SD = 1.40$ ) voluntarily participated in this study in exchange for credit.

**Procedure.** Participants completed the Spanish version of SyTeD. At least one month after completing the instrument (range between 4-5 weeks), each participant went to the lab and was escorted into a cubicle that contained a computer. After reading and signing the consent form, they saw a PowerPoint presentation in which it was explained that their opinion was wanted about a pilot program to be included in the radio station of the university.

They were told they were going to listen to one out of the two possible programs: either "News from the personal side" or "Gifted Students." Actually, all participants listened to the same recorded program "News from the personal side," which presented the story of Isabel Toledo, a student who had lost her parents and a sister, and was currently looking after her two younger siblings while trying to complete her degree. This case was adapted from the one originally created by Batson and colleagues (e.g., Coke, Batson & McDavis, 1978). After listening to the interview, participants completed the Spanish version (Oceja & Jiménez, 2007) of the Empathic Response Questionnaire (ERQ; originally created by Batson et al., 1987) to tap what they felt towards Isabel, the victim in need. This measure has been used in previous research to measure current situational empathic concern and personal distress (see Batson, 2011), and more recently, the sympathy and tenderness components of empathic concern (see Niezink et al., 2012).

Then, participants were handed a letter signed by the director of the study, in which they were given the unexpected opportunity to help Isabel. The aid consisted of completing forms requesting financial support for Isabel. It was made explicit that participating in the study in no way involved an obligation to help. After they had read the letter, participants were provided with a form and an envelope. If they were willing to help Isabel, they signed the form, provided their contact data (name, telephone, and e-mail), and indicated the number of hours –in a range that went from 1 to 5 hours– they wished to volunteer. If they did not want to volunteer, they just left the form blank and put it into the envelope. Once the study was done all participants were debriefed.

## **Results and Discussion**

**From dispositions to situational feelings.** We used the following terms to calculate the situational or episodic (state) emotional experience subscales from the ERQ: tenderness

(*soft-hearted, warm, and tenderness*;  $\alpha = .78$ ), sympathy (*compassion, moved, and sympathy*,  $\alpha = .83$ ), and personal distress (*alarmed, anxious, distressed, and troubled*,  $\alpha = .77$ ).

The factor structure of the dispositional scale was identical to the one obtained in the previous studies (see Table 1). The correlations between the dispositional and situational measures are presented in Table 3. Dispositional sympathy correlated significantly with the state or situational sympathy reported in the experimental situation. Dispositional tenderness correlated significantly with the state or situational sympathy and tenderness reported in the study. Subsequent partial correlation analyses showed that, when controlling for the effect of the dispositional sympathy, dispositional tenderness remained significantly associated with situational or state tenderness;  $r(57) = .27, p < .05$ , but not with situational or state sympathy,  $r(57) = .21, p > .10$ .

**Helping behavior.** Thirty-five participants (58.30%) offered to help, with an average of 3.11 hours per week ( $SD = 2.10$ ). The time devoted to helping correlated significantly with dispositional sympathy, and with the situational or state sympathy and personal distress reported in the situation. Regression analyses showed that the significant relation between dispositional sympathy and time devoted to help,  $\beta = .26, p = .04$ , was no longer significant,  $\beta = .11, p = .40$ , when controlling for situational or state sympathy, which itself accounted for unique variance in time devoted to help,  $\beta = .35, p < .001$ . Baron and Kenny's (1986; see also Kenny, Kashy, & Bolger, 1998) modification of the Sobel test (1982) showed that the indirect effect of dispositional sympathy (through situational sympathy) on help was statistically significant,  $z = 1.84, p = .04$ .

This study assessed the predictive validity of the SyTeD. Results showed that dispositional sympathy predicted helping behavior, mediated by situational sympathy. It is important to acknowledge that the dispositional scale was completed by participants, at least,,

one month before, addressing this fact important method biases (i.e., item contextual effects, measurement context effects) that can inflate effect sizes between measures (see Podsakoff et al., 2003).

### **General Discussion**

We designed and tested a new scale, SyTeD, to measure the dispositions to feel sympathy, tenderness, and personal distress. From a situational perspective, the different components of empathic concern were outlined by Lishner et al. (2011), who illustrated the difference between tenderness and sympathy, the appraisals that elicited them (chronic vulnerability and current need, respectively), and their probable behavioral consequences (providing care and helping, respectively). Up to now, these two components had been measured as episodic emotional responses with two emotional terms (Lishner et al., 2011) and with two subscales derived from the empathic concern scale developed by Batson and collaborators (Niezink et al. 2012). However, none of the previous dispositional measures included such differentiation.

The main objective of the present work was to address the sympathy-tenderness difference from a dispositional perspective. In Study 1 we developed and validated the SyTeD (English version) in the US in English, and obtained a three-factor solution with good reliability for all the scales. In Study 2 we adapted the measure into Spanish with a forward-backward translation method to analyze its psychometric properties and tested its content and criterion validity with other personality measures. As expected, sympathy and tenderness correlated with IRI's EC, whereas distress correlated with IRI's PD. Moreover, none of the SyTeD's scales correlated with social desirability, which might be a potential bias in a self-report measure (McGrath et al., 1998).

In Studies 3 and 4, besides replicating the internal structure of SyTeD, we went one step further and test its predictive value. In Study 3, we tested whether the dispositions to feel tenderness and sympathy predicted different allocation patterns that supported a project directed to either help the needy or care for the vulnerable. Because sympathy is more linked to the appraisals of need (i.e. acute situation that needs to be solved) and tenderness is relatively more linked to the appraisal of chronic or acute vulnerability (i.e., state of potential vulnerability or actual vulnerability due to a current need), we expected that dispositional sympathy would predict preference for help whereas tenderness would predict a preference for both care (chronic vulnerability) and help (acute vulnerability). Overall the results supported our hypothesis.

In Study 4, we tested whether the dispositions (measured at least one month in advance) predicted both, the emotions elicited in a concrete situation and the subsequent helping behavior. Specifically, participants completed the SyTeD and they were later (at least one month after) exposed to a victim in acute need and asked whether they wanted to help that victim. Results showed that dispositional sympathy predicted helping behavior and situational or state sympathy felt toward that victim had an indirect effect or mediated such relation. This result is in line with Lishner et al. (2011)'s proposal that sympathy produces an altruistic motivation directed toward the ultimate goal of addressing the current and specific need that evoked that emotion (Dovidio et al., 1990). The obtained results suggest that the sympathy-tenderness distinction is useful to predict a different kind of prosocial action (helping vs. care), something that was completely overlooked by previous measures such as the IRI (Davis, 1980).

Hence, SyTeD in its two versions (English and Spanish) complements the existing dispositional measures on empathic responding. Bringing the sympathy-tenderness

distinction into the dispositional field will enrich the existing knowledge about empathic concern and will allow making more detailed predictions about prosocial behavior. In this regard, we believe our results have important practical implications for the design of those campaigns to assist others, as depending on the victim presentation (i.e., vulnerable vs. undergoing a current need) it may elicit different emotional responses and different actions. For instance, presenting a vulnerable victim without a current need may not impact individuals with a prevalent disposition to feel sympathy—over a disposition to feel tenderness—, which may lead to a lack of prosocial behavior (e.g., donation). However, if the victim is presented as experiencing a current need it may move both people who tend to feel sympathy (through the appraisal of need) and people who tend to feel tenderness (through the appraisal of acute vulnerability). Furthermore, according to our findings, only those who experience sympathy (over tenderness) will be more likely to act prosocially. These findings should be considered by prevention campaigns as it may be more beneficial if aiming for people to act prosocially to present a victim as experiencing a current need rather than just vulnerable.

### **Limitations**

Taken together, these four studies have strengths and weaknesses. None of the studies had particularly large sample sizes. Although the same 3-factor structure (Sympathy, Tenderness, and Distress) was obtained across the four studies, larger samples will increase confidence in such structural validity. Regarding the criterion validity, it has been tested only through the relationship between the IRI and the social desirability scale. Including new personality measures will extend the psychological meaning of the three factors of SyTeD. With respect to their predictive value, the episodic emotional experience was not assessed in Study 3, this was to rule out the hypothesis guessing and consistency effects provoked by



taken the dispositional and situational measures at the same time. Nevertheless, it will be interesting to replicate the results obtained in Study 3 by using a procedure similar to that used in Study 4. This will also allow addressing one limitation of Study 4, in which helping and caring behaviors were not considered at the same time. Finally, the sample distribution in regards to age and gender was not even, making it difficult to generalize the obtained results.

### **Implications for future research**

The findings obtained in this research have theoretical implications. The results showed that tenderness and sympathy are distinct sides of the same emotional experience (empathic concern). More importantly, the sympathy-tenderness distinction has implications not only at a cognitive level (different appraisals) but also at a behavioral level (care vs. help). Thus, it is important to assess these emotions separately in order to know more about the consequences that each emotion may entail for prosocial behavior. Finally, future research may need to investigate the connection between the tendency to feel sympathy and tenderness with perspective taking, as it is considered the main antecedent of empathic concern (e.g., Batson, 2011).

It would be useful for future studies to investigate the conditions that primarily elicit each emotional experience. For instance, research on the effect of infant-like characteristics (e.g., Batson et al., 2005; Lishner et al., 2008) suggests that these features enhance situational empathic concern, which in turn may foster helping to an infant-like victim in comparison with a non-infant-like one. This research could be enriched by incorporating the sympathy-tenderness distinction at a dispositional level.

Another interesting venue for future research could be the study of the possible side-effects of such sympathy-tenderness prevalence. Maybe those with a disposition to feel sympathy rather than tenderness overlook vulnerable targets that are not showing a clear

current need. On the other hand, research has shown that empathizing with an individual in clear need may lead to overlook either justice principles (Batson et al., 1995; Oceja, 2008) or the collective good (e.g., Batson et al., 2005; Oceja & Jimenez, 2007; Oceja et al., 2014). Are those with a higher disposition to feel sympathy more prone to show these effects? The present research cannot offer direct answers to these questions but it does lay the foundation for future research, and the results may be of interest to those who want to promote not only punctual prosocial action but long lasting protection of the vulnerable.

### Compliance with Ethical Standards

This research was funded by grants AP2008-00065 and PSI 2014-53321P from the Spanish Ministry of Education, Culture, and Sports. The authors do not have any conflict of interests. The research conducted has obtained ethical approval from the authors' institution and were in accordance with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. It has been carried after obtaining informed consent from the participants.

## References

- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173–1182
- Batson, C. D. (1991). *The altruism question: Toward a social-psychological answer*. Hillsdale, NJ: Erlbaum.
- Batson, C. D. (2011). *Altruism in Humans*. Oxford, NY: Oxford University Press.
- Batson, C. D., Batson, J. G., Todd, R. M., Brummett, B. H., Shaw, L. L., & Aldeguer, C. M. R. (1995). Empathy and the collective good: Caring for one of the others in a social dilemma. *Journal of Personality and Social Psychology*, 68, 619-631.
- Batson, C.D., Fultz, J. & Schoenrade, P.A. (1987). Distress and Empathy: Two qualitative distinct vicarious emotions with different motivational consequences. *Journal of Personality*, 55, 19-39.
- Batson, C. D., Lishner, D. A., Cook, J., & Sawyer, S. (2005). Similarity and nurturance: Two possible sources of empathy for strangers. *Basic and Applied Social Psychology*, 27, 15-25.
- Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin*, 88, 588.
- Carlo, G., Eisenberg, N., Troyer, D., Switzer, G., & Speer, A. L. (1991). The altruistic personality: In what contexts is it apparent? *Journal of Personality and Social Psychology*, 61, 450-458.
- Coke, J. S., Batson, C. D., & McDavis, K. (1978). Empathic mediation of helping: A two-stage model. *Journal of Personality and Social Psychology*, 36, 752-766.

- Costello, A. B., Osborne, J. W. (2005). Best practices in exploratory factor analysis: four recommendations for getting the most from your analysis. *Practical Assessment, Research & Evaluation, 10*, 1-9.
- Crowne, D. P., & Marlowe, D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology, 24*, 349–354.
- Davis, M. H. (1980). A multidimensional approach to individual differences in empathy. *Catalog of Selected Documents in Psychology, 10*, 85, (pp.1-17).
- Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology, 44*, 113-126.
- Davis, M.H., Hall, J.A., & Meyer, M. (2003). The first year: Influences on the satisfaction, involvement, and persistence of new community volunteers. *Personality and Social Psychology Bulletin, 29*, 248-260.
- Davis, M. H., Mitchell, K. V., Hall, J. A., Lothert, J., Snapp, T., & Meyer, M. (1999). Empathy, expectations, and situational preferences: personality influences on the decision to participate in volunteer helping behaviors. *Journal of Personality, 67*, 469–503.
- Dovidio, J. F., Allen, J. L., & Schroeder, D. A. (1990). The specificity of empathy-induced helping: Evidence for altruistic motivation. *Journal of Personality and Social Psychology, 59*, 249-260.
- Dymond, R.F. (1949). A scale for the measurement of empathic ability. *Journal of Consulting Psychology, 13*, 127-133.

- Eibl-Eibesfeldt, I. (1971). *Love and hate*. New York: Aldine de Gruyter.
- Eisenberg, N., Miller, P. A., Schaller, M., Fabes, R. A., Fultz, J., Shell, R., & Shea, C. L. (1989). The role of sympathy and altruistic personality traits in helping: A reexamination. *Journal of Personality*, 57, 41-67.
- Ferrando, P.J. & Chico, E. (2000) A Spanish version of the Marlowe and Crowne's social desirability scale. *Psicothema*, 12, 383–389.
- Frijda, N. H. (1986). *The emotions*. New York: Cambridge University Press.
- Grynberg, D., Heeren, A., & Luminet, O. (2012). Development and Validation of the Vicarious Distress Questionnaire. *Canadian Journal of Behavioural Science*, 44, 138-145.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1-55.
- Kalawski, J. P. (2010). Is tenderness a basic emotion? *Motivation and Emotion*, 34, 158–167.
- Kenny, D. A., Kashy, D. A., & Bolger, N. (1998). Data analysis in social psychology. In D. T. Gilbert, S. T. Fiske, & G. Lindzeg (Eds.), *The handbook of social psychology* (Vol. 1, 4th ed., pp. 233–265). New York: McGraw-Hill.
- Lishner, D. A, Batson, C.D. & Huss E. (2011). Tenderness and sympathy: distinct empathic emotions elicited by different forms of need. *Personality and Social Psychology Bulletin*, 37, 614-625.
- Lishner, D., Ocejja, L.V., Stocks, E. & Zaspel, K. (2008). The Effect of Infant-Like Characteristics on Empathic Concern for Adults in Need. *Motivation and Emotion*, 32, 270-277.
- Lorenz, K. (1971). *Studies in animal and human behavior*, Vol. 2. Cambridge: Harvard University Press.

- McArdle, J. J. (1990). Principles versus Principals of Structural Factor-Analyses. *Multivariate Behavioral Research*, 25, 81-87.
- McGrath, M., Cann, S., & Konopasky, R. (1998). New measures of defensiveness, empathy, and cognitive distortions for sexual offenders against children. *Journal of Research and Treatment*, 10, 25–36.
- Mehrabian, A. & Epstein, N. (1972). A measure of emotional empathy. *Journal of Personality*, 40, 525-543.
- Niezink, L.W., Siero, F.W., Dijkstra, P., Buunk, A.P., & Barelds, D.P.H. (2012). Empathic concern: Distinguishing between tenderness and sympathy. *Motivation and Emotion*, 36, 544–549.
- Oceja, L.V. (2008). Overcoming Empathy-induced Partiality: Two Rules of Thumb. *Basic and Applied Social Psychology*, 30, 176-182.
- Oceja, L. V., Heerdink, M., Stocks, E. L., Ambrona, T., López- Pérez, B., & Salgado, S. (2014). Empathy, awareness of others, and action: How feeling empathy for one-among-others motivates to help the others. *Basic and Applied Social Psychology*, 36, 111-124.
- Oceja, L. V. & Jiménez, I. (2007). Beyond Egoism and Group Identity: Empathy for the Other and Awareness of Others in a Social Dilemma. *The Spanish Journal of Psychology*, 10, 369-379.
- Oceja, L. V., López-Pérez, B., Ambrona, T., & Fernández, I. (2009). Measuring General Dispositions to Feel Empathy and Distress. *Psicothema*, 21, 171-176.

- Penner, L. A., Fritzsche, B. A., Craiger, J. P., & Freifeld, T. R. (1995) Measuring the prosocial personality. In J. Butcher & C. D. Spielberger (Eds.), *Advances in personality assessment* (Vol. 10, pp. 147-163). Hillsdale, NJ: Erlbaum.
- Pérez-Albéniz, A., de Paúl, J., Etxebarria, J., Montes, M. P., & Torres, E. (2003). Adaptación del Interpersonal Reactivity Index (IRI) al español. *Psicothema*, 15, 267-272.
- Scherer, K. R. (1984). On the nature and function of emotion: A component process approach. In K. R. Scherer & P. Ekman (Eds.), *Approaches to emotion* (pp. 293-317). Hillsdale, NJ: Erlbaum.
- Shaver, P., Schwartz, J., Kirson, D., & O'Connor, C. (1987). Emotion knowledge: Further exploration of a prototype approach. *Journal of Personality and Social Psychology*, 52, 1061-1086.
- Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. In S. Leinhardt (Ed.), *Sociological methodology* (pp. 290–312). San Francisco: Jossey-Bass.





*Table 1.* Factorial Weights Across the Four Studies for the 12 items that Formed the Sympathy-Tenderness-Distress (SyTeD) Measure.

Item Number	Study	Tenderness				Personal distress				Sympathy			
		1	2	3	4	1	2	3	4	1	2	3	4
1	I like to view pictures of other peoples babies and animals	.89	.85	.89	.82	.15	.16	.14	.15	.21	.25	.11	.14
5	I feel warmth feelings when I see people looking after somebody	.84	.79	.60	.73	.06	.09	.11	.12	.15	.24	.27	.25
7	When I see a newborn I cherish their innocence	.70	.88	.77	.78	.10	.08	.11	.15	.28	.24	.26	.27
11	Elderly couples holding hands makes me smile	.70	.86	.76	.73	.08	.03	.01	.05	.10	.14	.28	.21
2	It is very hard for me to visit someone who is sick	.01	.03	.01	.02	.81	.74	.77	.81	.10	.15	.11	.09
4	If I know someone lost somebody I tend to avoid him/her because I know I'll be upset	.02	.08	.01	.08	.79	.76	.56	.62	.01	.03	.08	.09
9	If something bad happens to someone, I prefer not to speak with him/her because it will only make me feel worse.	.01	.07	.09	.05	.77	.83	.83	.76	.08	.09	.16	.11
12	Seeing the misfortune of others makes me feel nervous.	-.02	.07	.01	.06	.74	.71	.62	.74	.18	.15	.14	.12
3	If someone I know is in pain I tend to think about their feelings more than my own	.28	.30	.27	.26	.001	.08	.10	.07	.77	.71	.48	.84

6	Seeing someone in need makes me focus my attention on that person.	.24	.15	.27	.31	.02	.03	.04	.04	.76	.78	.86	.68
8	When I see someone genuinely suffering I tend to think about how their situation must make them feel	.32	.30	.24	.26	.02	.001	.03	.02	.70	.79	.88	.68
10	When someone cries I offer a listening ear	.28	.26	.21	.32	.07	.05	.003	.07	.61	.79	.69	.62

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Note: Study 1 n = 117; Study 2 n = 104; Study 3 n = 54; Study 4 n= 60.

*Table 2.* Correlations Among the Five Scales Used in Study 2.

	1	2	3	4	5	6
1. D. Tenderness		.31**	.16	.42**	.23*	-.05
2. D. Sympathy			-.10	.62**	-.12	-.10
3. D. Personal distress				-.12	.26**	-.01
4. Empathic concern (IRI)					-.10	-.11
5. Personal Distress (IRI)						.28**
6. Social Desirability						

\*  $p < .05$ ; \*\*  $p < .01$

*Table 3.* Correlations Between Dispositions (D.), Reported Emotions (S.), and Behavior in Study 4

	1	2	3	4	5	6	7
1. D. Tenderness		.32*	.08	.33**	.33*	.06	.15
2. D. Sympathy			-.01	.24	.47**	.08	.27*
3. D. Personal distress				.18	.23	.17	.03
4. S. Tenderness					.55**	.37**	.22
5. S. Sympathy						.47**	.37**
6. S. Personal Distress							.33**
7. Helping Behavior							

\*  $p < .05$ ; \*\*  $p < .01$

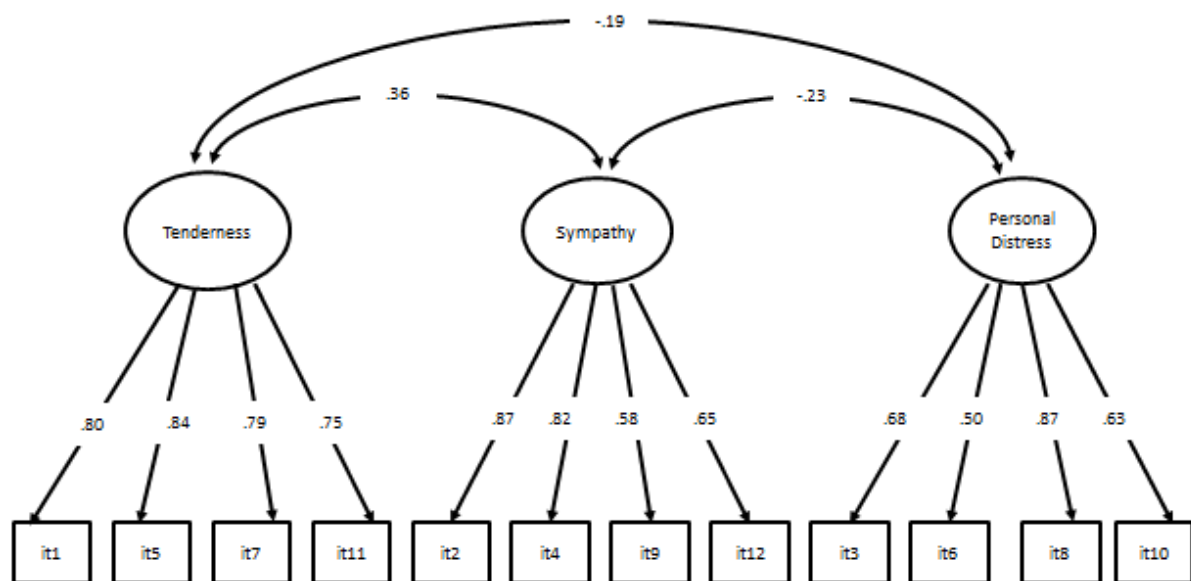


Figure 1. Confirmatory Factor Model of the SyTeD.