The Development and Validation of the Compassion of Others' Lives Scale (The COOL Scale)

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Abstract

This is a presentation of research concerning the development and validation of a 26 item measure of Compassion of Others' Lives. The Compassion of Others' Lives Scale (COOL scale) was developed and validated in 2 studies with a total of 355 participants. Data was collected in the United States from students at a northeast Pennsylvania college campus. Results indicated that the COOL scale has a high internal consistency. Test-retest suggests excellent reliability; convergent and discriminate validity confirmed the 2 subtests of the COOL scale to measure the constructs of compassion. The implications for the COOL scale are discussed.

Key Words: compassion, altruism, benevolence, validation, alleviating suffering, empathy, reliability, skill development.

1. Introduction

In *The Descent of Man*, Charles Darwin (1871) posited, "one of humankind's noblest virtues seems to arise incidentally from our sympathies becoming softer and more widely diffused, until they are extended to all sentient beings." According to the Dalai Lama (1998), who finds much inspiration in Darwinism, "Compassion is a state of mind that is non-violent, non-harming, and non-aggressive. It is a mental attitude based on the wish for others to be free of their suffering and is associated with a sense of commitment, responsibility, and respect towards the other," (p.114-115). In essence, compassion is based on the rationale that all human beings have an innate desire to overcome suffering in order to be happy, and that they have the natural right to fulfill this fundamental aspiration. Cognitive neuroscientist Tania Singer of the University of Zurich found that brain areas involved in pain perception respond when people observe others wince from an electric shock (Singer et al, 2004). Singer identified the anterior insula to play a key role in empathy, which indicates a neural mechanism for empathetic aspects of compassion.

- 1.1 The researchers' theoretical perspective of compassion is congruent with W. David Hoisington's notion in A Philosophy of Compassion (2009) that, "one half of compassion is empathy, the ability to feel the suffering of another, and the other half of compassion is wisdom the wisdom to act in such a way so that suffering is reduced." Essentially, wisdom combines knowledge with reasoning and reflection. It is an assessment of the situation—including the other, yourself and the resources available—developing insight from all sources, and acting in that unique moment with the intent of promoting happiness. In essence, the researchers' theoretical perspective of compassion is that empathy must occur followed by an act to alleviate suffering.
- 1.2 The researcher Kristin Neff (2003) stated that in order to have compassion for others you must notice that they are suffering. Compassion involves feeling moved enough by others' suffering that you respond to their pain. This is different from pity as it requires the realization that suffering, failure, and imperfection are felt by all humans (Neff, 2003). When we witness the suffering and imperfections in others' lives, the compassionate person understands and absorbs those feelings as his or her own. It is the human ability to empathize, experiencing another's suffering as their own, that drives a truly compassionate act.

- 1.3 Empathy is an extremely broad topic that has multiple definitions and conceptualizations. De Vignemont and Singer (2006) stated that empathy requires:
 - 1. You feel a particular affective state;
 - 2. This state feels similar to you and the 'target' of your empathy, but has different causes;
 - 3. It stems from you watching or imagining the target's affective state;
 - 4. You realize your affective state is a result of empathy (p. 435)

Daniel C. Batson (1981), at the University of Kansas, defines empathy in two ways:

- 1. Empathetic concern defined as emotional responses such as compassion, concern, warmth, and softheartedness:
- 2. Personal distress defined as emotions such as shock, alarm, disgust, shame, and fear.

Overall, individuals high in empathy tend to want to help even if they have no duty to do so, while individuals low in empathy tend to help only when they cannot avoid the situation (Batson et al., 1981). In essence, the more accurate we are in perceiving the state of others, the more precise our empathetic emotional responses are, which can motivate us to act wisely and compassionately.

- 1.4 Compassion should be distinguished from benevolence and altruism. Compassion requires benevolence and altruism, but it is not necessarily true compassion (Hoisington, 2009). Benevolence may be defined as the desire to do good for others accompanied by a willingness to do so (Hoisington, 2009). Altruism can be thought of as a sacrifice performed without conscious self-interest in order to reduce suffering (Hoisington, 2009). Benevolent and altruistic acts are driven by factors other than empathy. Benevolence revolves around human values and altruism is not necessarily motivated by empathy. Without empathy, both acts do not fit the researchers' definition of compassion.
- 1.5 In the past, there have been a number of scales developed to measure elements of compassion:
 - 1. Measure of Emotional Empathy Scale, measuring emotional responsiveness to another's emotional state (Mehrabian & Epstein, 1972);
 - 2. Self-Compassion Scale, measuring the level of understanding towards ones' self (Neff, 2003);
 - 3. Fear of Compassion Scale, measuring fear of compassion towards one's self, towards others, and from others (Gilbert et al., 2010)
 - 4. Perceived Empathic Self-Efficacy Scale, measuring individuals' self-efficacy beliefs regarding empathic responses to others' needs and managing relationships (Di Giunta et al., 2010).

However, these scales are not based on the theoretical perspective of compassion defined as empathy driving an act to alleviate suffering.

1.6 Daniel C. Batson (1981) researched the sources of altruistic motivation at the University of Kansas. At the time, existing theories tended to attribute helping behaviors to egoism, with the ultimate goal of benefiting one's self. Batson's research focused on identifying where the egoistic and altruistic motivation differed behaviorally (p. 291, 1981). Batson's research suggests that empathy was a motivator of helping behaviors, which gives support to the researchers' theoretical definition of "true compassion".

In congruence with W. David Hoisington's *A Philosophy of Compassion*, Dr. Jyh-Hann Chang (2006) believes that true compassion requires empathy for others' suffering, followed by an action that alleviates suffering. Dr. Chang adds that true compassion is sequential where empathy is the driving force behind the alleviation of suffering. One must first be empathetic towards others' suffering, which motivates an act to end their suffering. The COOL scale attempts to answer the following questions:

- 1. Are you compassionate towards other people?
- 2. How can we assess the construct of "compassion"?

The goal of this research is to create a survey tool measuring an individual's level of compassion toward others. The name of this tool is the Compassion of Others' Lives scale, or the COOL scale.

1.7 The researchers consider the empathetic component as a necessary portion of compassion because a person must first empathize towards others' suffering prior to an act to alleviate suffering. The second component of compassion is behavioral. Compassion without action is not compassion, but merely empathy. The researchers termed this behavioral component "alleviating suffering". For the purposes of this study, compassion is defined as empathy followed by an act to alleviate suffering.

This research can have important implications in not only the field of psychology but other fields that warrant a compassionate individual as well. Finding the COOL levels of an individual could help with hiring at hospice centers, missionary work selections, and many other scenarios. For these reasons, the creation of the COOL scale is an important endeavor for both academic and practical reasons.

2. Method

Scale Development

The 26 item Compassion of Others' Lives (COOL) scale was derived from two separate studies. In the initial study, 63 items were administered to a college sample (N=232) in which 14 empathy items were derived through factor analysis. One item was dropped, which resulted in 13 empathetic items. The Alleviating Suffering items were not identified within the initial sample study. The second factor analysis study administered 40 items to a college population (N=122) and derived 13 Alleviating Suffering items.

The final 26 items and their response formats (7-point Likert scales) are presented in Appendix A. A single composite score for global compassion is computed by adding the average of empathy subscale with the average of the alleviating suffering subscale. Thus, the possible range of scores on the COOL scale is from 2 to 14, with higher scores reflecting greater compassion.

2.1 Participant

The assessment of reliability and validity of the COOL scale was obtained through two sample populations collected at different times (see Table I). The total number of respondents was 355 (232 Women, 122 Men, 1 Unknown). All samples were recruited from the same Northeast Pennsylvania University. The first sample of undergraduate students ranged in age from 18 to 41 years (M=20.1). The second sample of undergraduate students ranged in age from 18 to 43 years (M=19.7).

Respondents completed the measures in their respective classrooms. Table I describes the mean, standard deviation, and alpha reliabilities of the COOL scale for each sample. Some classes were required to participate for credit in psychological studies. All participants were informed of confidentiality prior to completion of their surveys. Participants were given informed consent, and debriefed following completion of the survey.

2.2 Materials

The Measure of Emotional Empathy, Correlates of Delinquency, and Self-Compassion scales were used to validate the COOL scale. For convergent validity, the Measure of Emotional Empathy scale (Mehrabian & Epstein, 1972), which measures empathy, contains 33 items using 9-point ratings (-4 for very strong disagreement to +4 for very strong agreement). For discriminate validity, the Correlates of Delinquency scale (Hindelang et al., 1979), which assesses behaviors associated with delinquency, consists of 12 items using a 'yes' or 'no' scale. The Self-Compassion scale (Neff, 2003), which assesses compassion for one's self, consists of 26 items using a 5 point Likert scale (1for almost never to 5 for almost always). In addition to these scales, the Marlowe-CrowneSocial Desirability scale (1960) was also implemented to see if the COOL scale correlates with social bias.

2.3 Procedure

The content of the COOL scale items was inspired by literary review on empathy and helping behaviors (alleviating suffering). The Empathy subscale questions were inspired by *A Philosophy of Compassion* by Hoisington (2009) which offers a theoretical perspective of compassion composed of seven elements:

- 1. Compassion is empathy plus wisdom
- 2. Compassion is relational
- 3. Compassion is instinctual
- 4. Compassion follows a normal distribution in society
- 5. Compassion can be developed
- 6. Compassion promotes well-being
- 7. Compassion flourishes in an environment of support.

The Alleviating Suffering subscale questions were inspired by existing literature on the subject of helpful behavior, including:

- 1. Contact Hypothesis (Allport, 1954)
- 2. Equity Theory (Adams, 1963)
- 3. Empathy-Altruism Hypothesis (Toi and Batson, 1972)
- 4. Identifiable victim effect (Small, Loewenstein and Slovic, 2007))
- 5. Love (Hendrick and Hendrick, 1986)
- 6. Politeness Theory (Brown and Levinson, 1978)
- 7. Prosocial Behavior (Darwin, 1859)
- 8. Social Exchange Theory (Thibaut and Kelley, 1959)
- 9. Stockholm Syndrome (Bejerot, N., 1974)
- 10. Terminating Relationships (Cody, 1982)
- 11. Reciprocity Norm (Regan, 1971)
- 2.4 Once the COOL scale items were identified, a pilot test was conducted prior to the administration of the scale in order to determine the length of time needed to complete the questionnaire. The pilot study was given twice because the first study was not able to identify qualities directly related to alleviating suffering. The second study used a questionnaire that had 40 items which were created specifically to isolate alleviating suffering items. In addition, the second questionnaire had the original 13 empathy items identified within the first study. The second study also included the Measure of Emotional Empathy, Self-Compassion, Correlates of Delinquency, and Social Desirability scales.
- 2.5 The researchers contacted faculty members to seek consent in order to administer the survey in their classes. All classes contained between 50-70 students. The survey instrument was administered twice to the same class; once in the beginning of the semester and then again approximately three weeks after the initial administration, thus determining test-retest reliability. The participants were identified with a six digit number that they chose themselves.
- 2.6 A consent form was given to participants prior to the survey that provided a description of the study and stressed that participation was voluntary and there would be absolutely no consequences for withdrawal at any time. The researcher discussed confidentiality prior to the administration of the survey mentioning that all records will be stored in a locked cabinet. The participants were debriefed after both phases of data collection.
- 2.7 The initial study created 63 items and the second study generated an additional 40 items. Through principle component factor analysis, we were able to identify two factors that relate to the initial theory of compassion. (see Table III for empathy and Table IV for alleviating suffering) Items loading on factors less than .5 were omitted from the final versions of the subscales. A test-retest method given in a 3-4 week grace period was used to acquire reliability.
- 2.8 Following the principle component factor analysis, Pearson's correlational coefficient was used to determine the validity of the COOL scale in comparison to related measures. The Measure of Emotional Empathy scale was used to determine convergent validity of the COOL scale. The Correlates of Delinquency and Self-Compassion scale were used to find discriminate validity of the COOL scale. The COOL scale is correlated with the Marlowe-Crowne Social Desirability scale to determine if social bias was a factor.

3. Results

Internal Consistency

The internal consistency among the 26 items comprising the Compassion of Others' Lives scale was tested using Cronbach's alpha reliability. The first study sample showed good to excellent internal consistency of the empathy subscale, demonstrating comparability across samples of varying ages. Internal consistency was significant with an alpha level of .98. Of the original 63 questions given in the first study, only 14 items loaded onto one factor (displayed within Table II). One of the 14 items was deemed poorly written and was deleted. The remaining 13 items comprised the Empathy subscale. Table I displays the reliability coefficients obtained for each sample, as well as the means and standard deviations of the composite scales.

Due to the first study not being able to identify alleviating suffering items and subscale, a second study was conducted with a revised questionnaire consisting of 40 items resembling alleviating suffering-type qualities. The second study sample showed good to excellent internal consistency of the alleviating suffering subscale, demonstrating comparability across samples of varying ages. Internal consistency was significant with an alpha score of .897. Of the original 40 questions given within the second study, only 13 items loaded onto one factor (displayed within Table III).

3.1 Test-retest reliability

Longitudinal data was collected from 2 different samples, and the COOL scale demonstrated stability over time. The time difference between sessions ranged from about three to four weeks. The test-retest reliability score for the empathetic subscale within the first study had an alpha level of .872. The test-retest reliability score for the alleviating suffering subscale had an alpha level of .885.

3.2 Validity

To ensure that the COOL scale was not tainted by social desirability bias, Pearson's correlation coefficient was calculated between the COOL scale average and the Marlowe-Crowne Social Desirability scale, and found a non-significant negative correlation of -.163. The Empathy subscale had a negative correlation of -.183 with a significance of .047 on a .05 significance level (2-tailed, depicted in Table IV).

3.3 Convergent Validity

To assess convergent validity, the COOL scale was correlated with related published measures. This analysis was performed after giving the related measures to the tested groups within the first and the second study. Substantial correlations were found between the COOL scale and the Measure of Emotional Empathy scale. The COOL scale average was found to have a non-significant correlation with the Measure of Emotional Empathy scale (.135); however, the Empathy Subscale showed a strong correlation with the Measure of Emotional Empathy scale with a significance of .025 on a .05 significance level (2-tailed, depicted in Table IV).

3.4 Discriminant Validity

Discriminant validity was used to test the strength of the COOL scale. The COOL scale was correlated to the Correlates of Delinquency scale, a measure that should be ideally unrelated to compassion. The correlations between these two measures failed to reach a level of statistical significance with a Pearson correlate of .150 and a significance of .102. The Empathy subscale of the COOL scale was found to be correlated to the Correlates of Delinquency scale with a correlate of .137 with a significance of .011 on a .05 significance level (2-tailed, depicted in Table IV). The COOL scale was also correlated to the Self-Compassion scale which measures compassion towards oneself rather than towards others. The COOL scale was not significantly correlated to the Measure of Self-Compassion scale (r=.025, depicted in Table IV).

4. Discussion

Our findings suggest that the Subjective Happiness scale shows excellent psychometric properties. The COOL scale identified using factor analysis is characterized by having a high internal consistency following theoretical definitions of compassion and shows stability over time. The reliability measured using test-retests indicates the COOL scale to be a reliable and stable measure over time. The examination of the scale's construct validity indicated that its Empathy subscale had a strong correlation with the measure of Emotional Empathy scale.

- 4.1 Evidence of discriminate validity was further obtained with a non-significant correlation between the Self-Compassion scale which measures compassion towards ones' self, rather than compassion of other's lives. Also, the Compassion of Others' Lives scale showed a non-significant, negative correlation with Marlowe-Crowne Social Desirability, indicating that the Compassion of Others' Lives scale has limited social bias.
- 4.2 Despite the COOL scale's demonstration of high internal consistency and strong convergent validity, it showed small correlation with the Correlates of Delinquency scale which was hypothesized to be discriminate from the COOL scale. In reevaluating our results of the correlation between the COOL scale and the Correlates of Delinquency scale, we hypothesize that the results were due to the fact that the sample was from a college population. Many of the delinquent behavior measured in this Delinquency scale appears to be the norm for a college population. One of the main weaknesses of the development of the COOL scale is that it is limited to a college population.
- 4.3 The COOL scale requires further assessment of diverse populations and age groups because of the limited sample sizes and age ranges at a northwest Pennsylvania college that mainly receives students from the tri-state area. It is hoped that future explorations of the Compassion of Others' Lives scale would assess populations that should show high levels of compassion, like that of a convent. Logically, prison populations or juvenile detention centers should also be assessed because they should be low in compassion. Naturally, future explorations would hope to find means and norms of additional populations using the COOL scale. This research team (Chang, J, et al. 2014) has recently measured compassion with retired nuns from the Philadelphia area.

4.4 The implications of the Compassion of Others' Lives scale could be used within health and education fields that warrant compassionate individuals; this includes nursing, psychological services, social work, and teaching professions. The COOL scale could also be used to help accept individuals into educational programs that want high levels of compassion. It also could help us understand the limitations behind the goodness of others. The COOL scale could help illustrate the compassionate abilities we have as humans.

Table I: Sample Descriptions								
Sample	Location	<u>Alpha</u>	Empathy Mean (SD)	<u>Alleviating</u>	COOL			
Name (N)				Suffering Mean	Mean (SD)			
Sample 1	Public University	0.872	5.21 (.858)	-	-			
(N=228)								
Sample 2	Public University	0.894	5.55(.896)	5.8(.836)	11.35(1.56)			
(N=121)								

	Table II: Principle Components Extraction for Empathy						
Items	1	2	3	4	5	6	
I1	.727	141	076	.164	247	.269	
I2	.660	120	033	.224	439	024	
I3	.732	044	194	017	376	176	
I4	.772	.130	177	.003	088	003	
I8	.636	151	123	.390	.018	.158	
I9	.558	204	045	.416	.190	.129	
I10	.679	246	066	.242	.090	.145	
I11	.650	103	.040	.190	.426	110	
I12	.735	158	.077	122	.136	150	
I13	.457	.446	037	178	069	021	
I16	214	.474	.340	.315	.414	106	
I17	093	.508	.426	.477	112	.168	
I18	.673	.049	.099	.003	.266	404	
I20	.595	.179	.113	247	065	.066	
I21	.382	.624	081	117	093	.219	
I22	.526	.494	.001	084	.006	299	
I23	.382	.678	061	121	033	.087	
I24	.433	.413	194	.036	.155	.048	
I26	.400	087	109	449	.338	.499	
I27	.487	204	.417	180	.189	.385	
I49	.385	155	.727	073	235	.010	
I50	.407	182	.613	237	103	178	
I6	.671	283	201	129	.167	299	

Table III: Principle Components Extraction for Alleviating Suffering						
Items	1	2	3	4		
WB 21-1	.729	.073	234	027		
WB 22-1	.516	.234	053	.037		
WB 23-1	.698	.241	.117	078		
WB 24-1	.629	.334	144	.080		
WB 25-1	.730	155	.009	117		
WB 33-1	.686	.105	388	032		
WB 34-1	.668	.021	037	045		
WB 37-1	.714	184	219	094		
WB 38-1	.701	.057	.212	155		
WB 39-1	.656	096	.254	173		
WB 49-1	.524	017	.046	.363		
WB 50-1	.611	.038	169	.131		
WB 51-1	.531	.054	420	295		
WB 15-1	.292	282	015	.098		
WB 16-I	.274	.219	022	.474		
WB 17-1	.318	.329	374	.480		
WB 18-1 R	.248	687	067	.403		
WB 19-1 R	.137	620	107	.437		
WB 20-1 R	.202	599	064	.262		
WB 26-1 R	.140	344	199	.091		
WB 27-1	.247	.005	.359	262		
WB 28-1	.420	.393	112	165		
WB 29-1 R	.125	374	.081	.114		
WB 30-1	.457	.052	425	311		
WB 31-1 R	.277	307	.091	025		
WB 32-1 R	.272	231	034	057		
WB 35-1	.450	295	.225	104		
WB 36-1	.461	135	121	246		
WB 40-1	.251	165	.526	388		
WB 41-1	105	.512	081	160		
WB 42-1	.260	.430	.214	.336		
WB 43-1	038	.218	.282	.393		
WB 44-1	.422	.358	.099	.295		
WB 45-1	.223	.407	.227	.151		
WB 46-1	.475	122	.374	.049		
WB 47-1	.263	.049	.656	035		
WB 48-1	.488	073	.521	.173		
WB 52-1	177	.448	027	.230		
WB 53-1	.126	.310	.238	.143		

Table IV

Correlation Matrix

Correlations								
		Measure of Self Compassion	Measure of Empathy	Correlates of Delinquency	Cool average	Alleviate suffering average	Empathy average	Social Desirability
Measure of Self Compassion	Pearson Correlation	1	119*	0.032	0.025	0.004	-0.008	-0.115
Measure of Empathy	Pearson Correlation	-	1	-0.02	0.135	0.141	.121*	-0.137
Correlates of Delinquency	Pearson Correlation	-	-	1	0.15	0.15	.137*	0.083
Cool average	Pearson Correlation	-	-	-	1	.893**	.908**	-0.163
Alleviate suffering average	Pearson Correlation	-	-	-	-	1	.622**	-0.107
Empathy average	Pearson Correlation	-	-	-	-	-	1	-0.183
Social Desirability	Pearson Correlation	-	-	-	-	-	-	1

^{*} p< 0.05 level

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^{**} p<0.01 level

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APPENDIX A.

COOL Scale

Empathy items

- 1. I feel the emotions of other people
- 2. I understand people's feelings
- 3. I consider myself sensitive to others
- 4. Other people's emotions affect me
- 5. I worry about people in worse situation than me
- 6. I am caring to others
- 7. I have the ability to place myself in another's life position
- 8. I can project myself into someone else's feelings
- 9. I am naturally aware of the feelings and emotions of another
- 10. When I relate to another individual I picture myself in a similar situation
- 11. I get concerned when I see others in pain or suffering
- 12. I love towards others who are feeling emotional pain.
- 13. It makes me sad to see a lonely stranger

Alleviate suffering items

- 14. I like helping others when I see that my assistance leads them from their distress
- 15. When I know how someone feels I am more likely to help
- 16. I feel obligated to help someone if they appear to be in a significant amount of pain
- 17. If I notice someone close to me is going through a hard time emotionally I feel obligated to talk to them about it
- 18. I am willing to help out anyone who clearly needs it regardless of whether or not it benefits me
- 19. if someone is my friend, I am always there to help them
- 20. I am willing to help most people because it ultimately makes me feel good about myself
- 21. I don't have to be paid to help others.
- 22. I always feel obligated to help a person who seems in trouble regardless of the circumstances
- 23. When someone is in danger I tend to be the first to intervene and see how I can help.
- 24. I can't help but feel very sorry for a person who is starving
- 25. I would help up a stranger who has tripped and fell.
- 26. I would hold a door open for a person who is disabled.