

# Gender and Age Differences in Safety-Oriented Personality Style or Phobicentric Psychopathology (SOPS/PCP)

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## Abstract

This study investigates differences in gender and age in the Safety-Oriented Personality Style or Phobicentric Psychopathology (SOPS/PCP). Comparisons are made with Neuroticism in the Big 5 or Five Factor Model to further distinguish it from SOPS/PCP. The results show similarity in age but not gender differences between the two constructs. Also, the location of the participants (Canada or USA) was not significant. The study is an initial step in accumulating basic facts about SOPS/PCP.

**Keywords:** Big 5 Neuroticism, five factor model, plaster, continuous change

## 1. Introduction

The Safety-Oriented Personality or Phobicentric Psychopathology (SOPS/PCP) has been previously discussed (Bickersteth, Zhang & Guo, 2018). That study was the first time SOPS/PCP was proposed as a personality type. Its authors described the personality as follow:

“. . . the fear-anxiety construct underlying SOPS/PCP is to be broadly construed as a pervasive and persistent, reactive condition that is rooted in fear emotion and may be triggered by actual or perceived threat. Its very serious or severe expression would characterize it as a disorder. In other words, a phobicentric psychopathology is believed to develop under specific conditions from normal or adaptive fear to pathological reactivity. As emotion-based behavioral functioning it is further explained as controlled by neurobiological activity. Since SOPS represents characteristics attributable to a normal emotional reaction of fear, which develops into a worse form of a disordered pattern of persistent fearfulness or anxiety it fits well on a dimensional continuum.” The absence of any other previous study limits the present study’s ability to present longitudinal research on SOPS/PCP.

Big 5, or the Five Factor Model, Neuroticism (N) was seen as, in general, most closely associated with SOPS/PCP based on their trait constituents, though not to the extent of suggesting total overlap (Author, 2018). Previous research has revealed that N has demonstrated a relatively consistent pattern in connection with gender and age. Without any previous research on this new psychopathology however, comparable information on its gender and age characteristics is not available, particularly in view of similarity with N. The present study is aimed at providing the initial (and therefore preliminary) data on these topics. In regard to gender many studies have seemed to present substantial evidence that females tended to be higher than men in N. Accordingly the current study will address the gender pattern in SOPS/PCP. Research on age differences in personality, particularly relating to Big 5 traits, including N, originally indicated little change in the mean age level of personality in adulthood with Costa and McCrae (1988) concluding at one point that "personality is stable after age 30" (p. 853). This “set like plaster” view seemed to have evoked an opposing view, the contextual or “persistent change” position. Srivastava, John, Gosling and Potter (2003) who proposed it seemed to resolve the controversy in favor of a continuously changing pattern in personality. A question arises as to where SOPS/PCP would sit in relation to this dichotomy. Because this sample came from the United States and Canada, countries with very similar socio-cultural patterns, the study additionally considered the similarity of the samples from the two countries with respect to SOPS/PCP. In sum, the present study intends to determine, in relation to N, whether in general a higher level of SOPS/PCP is evident in women; with which of the “plaster” or “change”

propositions SOPS/PCP would align; and whether there is a difference in the samples from Canada and the United States.

## 2. Review of the Literature

Studies comparing the mean levels of N in males and females have consistently shown women higher than men (Weisberg, DeYoung, & Hirsh, 2011; Banzhaf et al., 2012). These results have been reported in different kinds of investigations, such as with cross-national and cross-cultural samples (Kajonius & Mac Giolla, 2017; Schmitt, Realo, Voracek, & Allik, 2008; McCrae et al., 2004), older age ranges (Chapman, Duberstein, Sörensen, & Lyness, 2007) and test instrument validation (Xi et al., 2018).

Research results on age patterns of N uniformly indicate a reduction in N with increasing age in a variety of settings and research designs - for example, in longitudinal and/or sectional studies (Roberts & Mroczek, 2008; Rantanen, Metsäpelto, Feldt, Pulkkinen, & Kokko, 2007; McCrae et al., 1999), using large samples (Lehmann, Denissen, Allemand & Penke, 2013; Lucas & Donnellan, 2009), with various national samples (Wortman, Lucas, & Donnellan, 2012), using structural models (McCrae et al., 2004) and meta-analytic studies (Roberts, Walton, & Viechtbauer, 2006).

Based specifically on the Big 5 Inventory (BFI), the relevant research information seems to indicate an expectation of commonality with respect to differences in personality traits between Canadians and Americans. In a key study the authors state: "...Although these results suggest geographical differences in personality profiles, countries were overall within less than half a standard deviation from each other. Again, we reason that this finding suggests similarities rather than differences." (Kajonius & Mac Giolla, 2017).

## 3. Materials and Methods

### 3.1 Measures

The *Safety-Oriented Personality Style or Phobicentric Psychopathology Individual Questionnaire (SOPS/PCPIQ)*. To assess SOPS/PCP attributes the SOPS/PCPIQ (Bickersteth, et al., 2018) – were administered. SOPS/PCPIQ consists of 29 items that measure the safety-oriented personality style using a six-point Likert-style scale, with a range from 0 (Never) to 5 (Very often). These items describe the SOPS/PCP attributes that were consistently displayed and likely to be recognized and accepted, especially by the individual with SOPS/PCP. The internal and test retest reliability of the SOPS/PCPIQ were 0.87, which suggests a high internal reliability and 0.59, which indicates a moderate reliability. And the SOPS/PCPIQ is convergently and divergently valid (Bickersteth, et al., 2018)

### 3.2 Sample

406 people volunteered to participate in the study by Bickersteth et al. (2018). They were described as English-speaking adults aged between 18 and 80+ years from the United States and Canada (see Table 1). Among the 406 people, 286 were identified as exhibiting SOPS/PCP because they reported having often or very often experienced at least one of the six traumas included in items 24 to 29. These 286 people are the focus of the present study. Table 2 presents their demographics.

Table 1. Demographic data (N = 406)

<b>Gender</b>	Frequency	Percent
Female	217	53.5
Male	188	46.3
Other	1	0.2
Total	406	100
<b>Age</b>	Frequency	Percent
18-39	142	35.0
40-59	130	32.0
60 and higher	134	33.0
Total	406	100
<b>Current country</b>	Frequency	Percent
United States	202	49.8
Canada	204	50.2
Total	406	100.0

Table 2. Demographic data (N = 286)

<b>Gender</b>	Frequency	Percent
Female	159	55.6
Male	126	44.1
Other	1	0.3
Total	286	100
<b>Age</b>	Frequency	Percent
18-39	104	36.4
40-59	99	34.6
60 and higher	83	29.0
Total	286	100
<b>Current country</b>	Frequency	Percent
United States	137	47.9
Canada	149	52.1
Total	286	100.0

### 3.3 Design and Procedures

Research questions and statistical methods were as follows:

- 1) Are there gender differences in overall SOPS/PCP? Independent t-test was used to check whether there was a significant difference between females and males on the average SOPS/PCPIQ scores.
- 2) Are there gender differences in individual SOPS/PCPIQ? Multiple independent t-tests were used to check whether there was a significant difference between females and males on the individual SOPS/PCPIQ scores.
- 3) Are there age differences in overall SOPS/PCP? One-way ANOVA was used to check whether there was a significant difference between young (18-39), middle (40-59), and older (60 and higher) age groups on the average SOPS/PCPIQ scores.
- 4) Are there age differences in individual SOPS/PCP? Multiple one-way ANOVAs were used to check whether there was a significant difference between young (18-39), middle (40-59), and older (60 and higher) age groups on the individual SOPS/PCPIQ scores.
- 5) Are there location differences in overall SOPS/PCP? Independent T-test was used to check whether there was a significant difference between people living in United States and Canada on the average SOPS/PCPIQ scores.
- 6) Are there location differences in individual SOPS/PCP? Multiple independent t-tests were used to check whether there was a significant difference between people living in United States and Canada on the individual SOPS/PCPIQ scores.

## 4. Results

Statistical analyses were performed using the Statistical Package for the Social Sciences (SPSS), version 24.

### 4.1 Gender Differences in Overall SOPS/PCPIQ Scores

Independent t-test revealed that there was no significant difference between females and males on the average SOPS/PCPIQ score:  $t(232.93) = 1.46, p = 0.15 > 0.05$ .

### 4.2 Gender Differences in Individual SOPS/PCPIQ Scores

Table 3 presents the related statistics. Column 1 lists the 29 items of SOPS/PCPIQ, which measure the SOPS/PCP attributes. Columns 2 to 5 provide the corresponding group statistics including group sample size, mean, and standard deviation. The last (column 6) shows the results of independent t-tests. Since multiple t-tests were conducted we set alpha as 0.001, to avoid inflated type I error. As the table shows, only 1 out of 29 characteristics of SOPS indicated a gender difference – specifically, item 21: I worry often about many things. For this item, females ( $M = 3.21, SD = 1.40, N = 159$ ) scored higher than males ( $M = 2.53, SD = 1.48, N = 126$ ):  $t(283) = 3.95, p < .001$ , two-tailed. The difference of 0.68 scale points was medium (Cohen's  $d = 0.47$ ).

Table 3. Gender differences in individual SOPS/PCPIO scores

Item	Group	N	Mean	Std. deviation	t(df)
1)It is normal to be unsure that you are safe from being harmed or hurt	Female	159	2.73	1.363	-0.10
	Male	126	2.75	1.296	
2)It is easy for people to hurt others with unfair criticism or blame	Female	159	3.59	1.104	1.28
	Male	126	3.41	1.248	
3)I look for all the compliments and praise I am due	Female	159	2.2	1.216	0.02
	Male	126	2.2	1.464	
4)I often say so when it feels like life is unfair or things are not going my way or in my favor	Female	159	2.47	1.301	0.27
	Male	126	2.43	1.371	
5)More than a few times a day I feel frustrated or upset	Female	159	2.3	1.362	0.95
	Male	126	2.14	1.343	
6)It is very uncomfortable whenever others find fault with one's appearance or image	Female	159	3.06	1.318	1.18
	Male	126	2.87	1.405	
7)It is difficult to wait for people or things	Female	159	2.8	1.296	0.39
	Male	126	2.74	1.316	
8)I probably speak or act in haste at times	Female	159	2.65	1.136	0.86
	Male	126	2.53	1.257	
9)I often regret things soon after I say or do them	Female	159	2	1.317	-2.14
	Male	126	2.33	1.225	
10)Some of my statements could be (or have been) described as sarcastic humor	Female	159	3.18	1.405	-0.20
	Male	126	3.21	1.237	
11)I may sometimes react very strongly or "lose it"	Female	159	2.16	1.394	-0.25
	Male	126	2.2	1.386	
12)Many situations are difficult in a relationship (whether at work, socially, in the family and/or in romantic situations)	Female	159	2.74	1.219	0.52
	Male	126	2.66	1.272	
13)The things that make a person very defensive or feel offended are always around you	Female	159	2.11	1.297	-0.96
	Male	126	2.26	1.316	
14)It is always very important to get as much information as there is	Female	159	4.04	0.881	0.86
	Male	126	3.95	0.902	
15)Order, tidiness and cleanliness are very important	Female	159	3.76	1.003	1.19
	Male	126	3.61	1.117	
16)I have a definite liking or dislike for certain textures, colors, patterns and/or motion	Female	159	3.13	1.372	2.58
	Male	126	2.69	1.467	
17)It might seem to others that my behavior is opposite to or inconsistent with other behaviors in similar situations	Female	159	2.3	1.325	-0.15
	Male	126	2.33	1.219	
18)Most of the time I take almost all statements and actions of others seriously or "as is"	Female	159	2.97	1.211	0.43
	Male	126	2.91	1.213	
19)Being on time and using time effectively are always very important	Female	159	4.14	0.906	2.99
	Male	126	3.79	1.076	
20)It is seldom necessary to disclose all of one's options	Female	159	2.87	1.175	-2.83
	Male	126	3.25	1.102	
21)I worry often about many things	Female	159	3.21	1.397	3.95***
	Male	126	2.53	1.484	
22)"Do things my way" could well be my motto, because that always feels better	Female	159	2.56	1.39	0.26
	Male	126	2.52	1.413	
23)Very often my mind is full of thoughts that come up again and again	Female	159	3.42	1.149	1.67
	Male	126	3.17	1.339	
24) At least one of my parents (the person who raised me) may be described as "a worrier"	Female	159	3.22	1.516	0.47
	Male	126	3.13	1.561	
25) At least one of my parents (the person who raised me) had emotional problems when I was growing up	Female	159	2.67	1.82	1.64
	Male	126	2.32	1.742	
26) I have suffered from the effects of trauma or a difficult emotional life for at least two years	Female	159	2.86	1.807	3.21
	Male	126	2.15	1.876	
27) I and/or one parent experienced a dangerous or very threatening personal, political and/or military event/s for an extended period	Female	159	1.57	1.819	-0.97
	Male	126	1.78	1.833	
28) I have been/am being bullied	Female	159	2.18	1.675	0.77
	Male	126	2.02	1.647	
29) I and/or one parent has suffered a serious illness	Female	159	3.25	1.806	0.26
	Male	126	3.19	1.724	

\*\*\*P&lt;0.001

#### 4.3 Age Group Differences in Overall SOPS/PCPIQ Scores

One-way ANOVA revealed that there was a significant difference between young (18-39), middle (40-59), and older (60 and higher) age groups on the average SOPS/PCPIQ scores:  $F(2,283) = 15.03, p < .001$ . A Tukey post hoc test further revealed that the average SOPS/PCPIQ scores of the older age group ( $M = 2.54$ ) was statistically significantly lower than that of the middle ( $M = 2.78$ ) and younger age group ( $M = 3.00$ ). The younger age group had a significantly higher average SOPS/PCPIQ score than that of the middle age group ( $p < 0.001$ ). These results indicated that as the age level increased, the frequency of expressing SOPS/PCP attributes decreased.

#### 4.4 Age Differences in Individual SOPS/PCPIQ Scores

Since multiple one-way ANOVAs were conducted, we set alpha as 0.001 to avoid inflated type I error (see details in Table 4). As the table shows, 11 out of 29 SOPS/PCP attributes presented age differences. These items were: 3) I look for all the compliments and praise I am due; 4) I often say so when it feels like life is unfair or things are not going my way or in my favor; 5) More than a few times a day I feel frustrated or upset; 9) I often regret things soon after I say or do them; 10) Some of my statements could be (or have been) described as sarcastic humor; 11) I may sometimes react very strongly or “lose it”; 21) I worry often about many things; 22) “Do things my way” could well be my motto, because that always feels better; 23) Very often my mind is full of thoughts that come up again and again; 26) I have suffered from the effects of trauma or a difficult emotional life for at least two years; 29) I and/or one parent has suffered a serious illness.

Tukey post hoc tests were conducted on these items. For all but one of the significant item scores the frequency of expressing SOPS/PCP attributes decreased as the age level increased. The score on only item 29 for the oldest age group ( $M = 3.71$ ) was statistically significantly higher than that for the middle age group ( $M = 3.34, p < .001$ ), which was significantly higher than the score for the youngest age group ( $M = 2.73, p < .001$ ). In this case the results indicated that the expression of SOPS/PCP increased with age, as represented by the three age groups.

Table 4. Age group differences in individual SOPS/PCPIQ scores

Item	Group	N	Mean	Std. deviation	F
1) It is normal to be unsure that you are safe from being harmed or hurt	18 – 39	104	2.91	1.39	1.59
	40 – 59	99	2.69	1.40	
	60 and higher	83	2.58	1.13	
2) It is easy for people to hurt others with unfair criticism or blame	18 – 39	104	3.41	1.30	2.94
	40 – 59	99	3.74	1.00	
	60 and higher	83	3.36	1.16	
3) I look for all the compliments and praise I am due	18 – 39	104	2.77	1.35	16.27***
	40 – 59	99	1.97	1.24	
	60 and higher	83	1.8	1.21	
4) I often say so when it feels like life is unfair or things are not going my way or in my favor	18 – 39	104	2.86	1.30	12.16***
	40 – 59	99	2.47	1.30	
	60 and higher	83	1.93	1.22	
5) More than a few times a day I feel frustrated or upset	18 – 39	104	2.96	1.30	34.51***
	40 – 59	99	2.11	1.19	
	60 and higher	83	1.48	1.16	
6) It is very uncomfortable whenever others find fault with one's appearance or image	18 – 39	104	3.27	1.30	4.48
	40 – 59	99	2.92	1.41	
	60 and higher	83	2.69	1.33	
7) It is difficult to wait for people or things	18 – 39	104	2.96	1.33	1.76
	40 – 59	99	2.73	1.30	
	60 and higher	83	2.61	1.28	
8) I probably speak or act in haste at times	18 – 39	104	2.72	1.19	.91
	40 – 59	99	2.57	1.19	
	60 and higher	83	2.49	1.18	
9) I often regret things soon after I say or do them	18 – 39	104	2.54	1.36	8.50***
	40 – 59	99	1.84	1.24	
	60 and higher	83	2.02	1.13	
10) Some of my statements could be (or have been) described as sarcastic humor	18 – 39	104	3.59	1.18	11.37***
	40 – 59	99	3.22	1.35	
	60 and higher	83	2.69	1.33	
	18 – 39	104	2.59	1.42	

11) I may sometimes react very strongly or “lose it”	40 – 59	99	2.15	1.40	9.76***
	60 and higher	83	1.71	1.20	
	18 – 39	104	2.85	1.21	
12) Many situations are difficult in a relationship (whether at work, socially, in the family and/or in romantic situations)	40 – 59	99	2.68	1.23	1.22
	60 and higher	83	2.57	1.29	
	18 – 39	104	2.3	1.45	
13) The things that make a person very defensive or feel offended are always around you	40 – 59	99	2.13	1.24	.57
	60 and higher	83	2.12	1.22	
	18 – 39	104	3.99	0.89	
14) It is always very important to get as much information as there is	40 – 59	99	3.97	0.86	.33
	60 and higher	83	4.07	0.93	
	18 – 39	104	3.59	0.99	
15) Order, tidiness and cleanliness are very important	40 – 59	99	3.72	1.17	.95
	60 and higher	83	3.8	0.99	
	18 – 39	104	3.14	1.40	
16) I have a definite liking or dislike for certain textures, colors, patterns and/or motion	40 – 59	99	3.04	1.32	4.22
	60 and higher	83	2.57	1.53	
	18 – 39	104	2.57	1.36	
17) It might seem to others that my behavior is opposite to or inconsistent with other behaviors in similar situations	40 – 59	99	2.4	1.28	6.49
	60 and higher	83	1.92	1.10	
	18 – 39	104	3	1.37	
18) Most of the time I take almost all statements and actions of others seriously or “as is”	40 – 59	99	3.03	1.07	1.10
	60 and higher	83	2.78	1.15	
	18 – 39	104	3.88	1.07	
19) Being on time and using time effectively are always very important	40 – 59	99	4.06	0.91	.97
	60 and higher	83	4.05	1.00	
	18 – 39	104	2.86	1.09	
20) It is seldom necessary to disclose all of one’s options	40 – 59	99	3.15	1.22	2.13
	60 and higher	83	3.14	1.14	
	18 – 39	104	3.31	1.37	
21) I worry often about many things	40 – 59	99	2.98	1.47	10.58***
	60 and higher	83	2.35	1.45	
	18 – 39	104	2.96	1.36	
22) “Do things my way” could well be my motto, because that always feels better	40 – 59	99	2.4	1.36	8.39***
	60 and higher	83	2.18	1.37	
	18 – 39	104	3.54	1.13	
23) Very often my mind is full of thoughts that come up again and again	40 – 59	99	3.48	1.20	10.17***
	60 and higher	83	2.81	1.29	
	18 – 39	104	3.45	1.51	
24) At least one of my parents (the person who raised me) may be described as “a worrier”	40 – 59	99	3.32	1.48	6.37
	60 and higher	83	2.7	1.54	
	18 – 39	104	2.95	1.67	
25) At least one of my parents (the person who raised me) had emotional problems when I was growing up	40 – 59	99	2.4	1.80	5.44
	60 and higher	83	2.12	1.84	
	18 – 39	104	2.96	1.76	
26) I have suffered from the effects of trauma or a difficult emotional life for at least two years	40 – 59	99	2.71	1.85	9.08***
	60 and higher	83	1.86	1.86	
	18 – 39	104	1.87	1.88	
27) I and/or one parent experienced a dangerous or very threatening personal, political and/or military event/s for an extended period	40 – 59	99	1.32	1.73	2.61
	60 and higher	83	1.8	1.83	
	18 – 39	104	2.37	1.66	
28) I have been/am being bullied	40 – 59	99	2.12	1.65	2.88
	60 and higher	83	1.78	1.63	
	18 – 39	104	2.73	1.85	
29) I and/or one parent has suffered a serious illness	40 – 59	99	3.34	1.76	7.79***
	60 and higher	83	3.71	1.52	
	18 – 39	104	2.73	1.85	

\*\*\*p &lt; .001.

#### 4.5 Geographical Differences in Overall SOPS/PCPIQ Scores

Independent t-test revealed that there was no significant difference between people living in United States and Canada on the average SOPS/PCPIQ score:  $t(284) = 0.69, p = 0.50 > 0.05$ .

#### 4.6 Geographical Differences in Individual SOPS/PCPIQ Scores

Table 5 presents the related statistics. Column 1 lists the 29 items of SOPS/PCPIQ, which measure the SOPS/PCP attributes. Columns 2 to 5 provide the corresponding group statistics including group, sample size, mean, and standard deviation. The last (column 6) shows the results of independent t-tests. Since multiple t-tests were conducted we set alpha as 0.001 to avoid inflated type I error. As the table shows, no significance was found.

Table 5. Geographical differences in individual scores

Item	Group	N	Mean	Std. deviation	t
1) It is normal to be unsure that you are safe from being harmed or hurt	U. S	137	2.82	1.28	1.06
	Canada	149	2.66	1.37	
2) It is easy for people to hurt others with unfair criticism or blame	U. S	137	3.48	1.24	-0.39
	Canada	149	3.54	1.11	
3) I look for all the compliments and praise I am due	U. S	137	2.31	1.33	0.73
	Canada	149	2.12	1.34	
4) I often say so when it feels like life is unfair or things are not going my way or in my favor	U. S	137	2.53	1.39	0.20
	Canada	149	2.38	1.27	
5) More than a few times a day I feel frustrated or upset	U. S	137	2.28	1.45	0.08
	Canada	149	2.20	1.28	
6) It is very uncomfortable whenever others find fault with one's appearance or image	U. S	137	2.95	1.33	.61
	Canada	149	3.01	1.39	
7) It is difficult to wait for people or things	U. S	137	2.83	1.31	.95
	Canada	149	2.73	1.31	
8) I probably speak or act in haste at times	U. S	137	2.61	1.24	0.45
	Canada	149	2.60	1.14	
9) I often regret things soon after I say or do them	U. S	137	2.23	1.31	0.35
	Canada	149	2.07	1.26	
10) Some of my statements could be (or have been) described as sarcastic humor	U. S	137	3.25	1.32	.60
	Canada	149	3.15	1.34	
11) I may sometimes react very strongly or "lose it"	U. S	137	2.13	1.41	-0.59
	Canada	149	2.23	1.37	
12) Many situations are difficult in a relationship (whether at work, socially, in the family and/or in romantic situations)	U. S	137	2.69	1.27	-0.19
	Canada	149	2.72	1.22	
13) The things that make a person very defensive or feel offended are always around you	U. S	137	2.24	1.36	0.64
	Canada	149	2.14	1.27	
14) It is always very important to get as much information as there is	U. S	137	3.96	0.94	-0.79
	Canada	149	4.05	0.84	
15) Order, tidiness and cleanliness are very important	U. S	137	3.68	1.14	-.21
	Canada	149	3.70	0.98	
16) I have a definite liking or dislike for certain textures, colors, patterns and/or motion	U. S	137	2.94	1.40	.01
	Canada	149	2.94	1.46	
17) It might seem to others that my behavior is opposite to or inconsistent with other behaviors in similar situations	U. S	137	2.26	1.41	-.74
	Canada	149	2.38	1.17	
18) Most of the time I take almost all statements and actions of others seriously or "as is"	U. S	137	3.04	1.19	1.30
	Canada	149	2.86	1.23	

19) Being on time and using time effectively are always very important	U. S	137	3.95	1.11	-0.72
	Canada	149	4.03	0.89	
20) It is seldom necessary to disclose all of one's options	U. S	137	3.18	1.10	1.88
	Canada	149	2.92	1.19	
21) I worry often about many things	U. S	137	2.91	1.50	-0.04
	Canada	149	2.92	1.45	
22) "Do things my way" could well be my motto, because that always feels better	U. S	137	2.49	1.35	-0.61
	Canada	149	2.59	1.44	
23) Very often my mind is full of thoughts that come up again and again	U. S	137	3.36	1.22	.75
	Canada	149	3.26	1.26	
24) At least one of my parents (the person who raised me) may be described as "a worrier"	U. S	137	3.14	1.54	-0.53
	Canada	149	3.23	1.54	
25) At least one of my parents (the person who raised me) had emotional problems when I was growing up	U. S	137	2.44	1.82	-.75
	Canada	149	2.60	1.77	
26) I have suffered from the effects of trauma or a difficult emotional life for at least two years	U. S	137	2.47	1.93	-.74
	Canada	149	2.63	1.81	
27) I and/or one parent experienced a dangerous or very threatening personal, political and/or military event/s for an extended period	U. S	137	1.94	1.83	2.56
	Canada	149	1.40	1.78	
28) I have been/am being bullied	U. S	137	2.11	1.69	-0.23
	Canada	149	2.11	1.63	
29) I and/or one parent has suffered a serious illness	U. S	137	3.40	1.65	1.61
	Canada	149	3.07	1.86	

\*\*\*p < .001 level

In effect, the location of this SOPS/PCP sample did not affect performance on the SOPS/PCPIQ at all. Gender for the most part – overall or at the item level, except for one case (item 21) demonstrated no significant differences in SOPS/PCPIQ performance. With respect to age however, overall, expression of SOPS/PCP attributes decreased inversely with age group. At the item level, in 11 out of 29 cases this inverse relationship was maintained except for one case that showed a significant increase with increasing age level.

## 5. Discussion

The overall objective of this study was to examine how similar SOPS/PCP is to N, which appears closest to its construct. In this regard the patterns of gender and age were compared with the prevalent evidence for N, including observing whether SOPS/PCP demonstrated a "plaster" or "change" character. The study also considered whether geographical location (in this case Canada and USA) affected the manifestation of SOPS/PCP. Based on the findings there were no gender differences except for a significantly higher frequency and amount of worry among women than men in only one item: "I worry often about many things" (Item 21). This tendency is not surprising given, for example, women's physical and social vulnerabilities in many societies including Canada and the USA and, in general, their child-rearing and domestic responsibilities. Typically, apart from this exception both are equally prone to SOPS/PCP. This overall virtual absence of gender differences in SOPS/PCP however, is in contrast to a preponderance of reports, which consistently present women as more prone to N than men. Here then is a major difference between SOPS/PCP and N, which, as the original study (Bickersteth, et al., 2018) suggested, represents evidence that SOPS/PCP and N are not identical despite their positive association.

The finding that the frequency of showing SOPS/PCP attributes decreases with increasing age is consistent with the "continuous change" viewpoint. The one item against this pattern (29. I and/or one parent has suffered a serious illness) however, may be explained as representing real life experience. Indeed as people grow older chronic illnesses tend to increase. Nonetheless these results overall show people, in general, would tend to be most vulnerable to SOPS/PCP at the younger age level (ages 18-39) of the three generational levels represented in this study.

Finally as would be expected of two contiguous countries with similar history, culture and social values it is no more or less likely to be prone to SOPS/PCP because of being located in the USA or Canada.

## 6. Limitations of the Study and Conclusion

This size of the samples used in this study greatly reduces confidence in applying the findings beyond the confines of this study. Future research is expected to address this deficiency. As such given the relatively recent introduction of SOPS/PCP into personality literature this study of gender, age and geographical location serves as an initial reference



point for future research.

To conclude, the gender results, which indicate a departure from the preponderance of the research evidence that consistently shows women with higher mean scores than men in N, reveal a major difference between SOPS/PCP and Big 5 N as shown in this study of a sample from Canada and the USA.

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### Ethics

The data for this study came from a previous study (Bickersteth et al., 2018) that met all ethical requirements.

### Conflict of Interest

The authors have no conflict of interest issues involving this research.

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