# Appendix E

# Recommendations for Personality Assessment Using SPI Forms

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Since beginning this project, I've been increasingly asked for advice about the "best" way to assess personality. No surprise – people want a simple answer to a complicated question. Of course, there isn't a simple answer but I figured it might save me time in the long run to write out a decision-tree-like response that works for most circumstances. My responses are limited to the SPI measures because (a) I feel most qualified to advocate for these tools; (b) I think they're pretty good (though there are other useful options too<sup>52</sup>); and (c) I am biased by a desire to see them used more widely.

For each of the questions below (that is, questions from me to you), I have provided advice based on the most likely responses. I reserve the right to update my answers later and, in fact, it would be useful for me know if these recommendations are not helpful, for whatever reason. Feel free to contact me with this feedback; courtesy is always appreciated. Please remember that these items and scales are freely-available for use in the public domain. I make absolutely no warranties about their use or mis-use by others.

#### Q1: Why do you want to assess personality?

1. To understand myself better: Great. I applaud this. Know thyself, etc. I recommend you take a personality assessment like those available for free online at sapa-project.org or outofservice.com or IPIP-NEO. These sites are managed by academic personality researchers and they will give you feedback on your personality that is based on your responses. You might also consider how these sites compare to other tools you can find on the internet. I dislike the MBTI® and would caution anyone against paying a lot of money to take it 53 But, it is among the most widely-used measures, thanks to having been around for 75 years and a cult-like following among non-scientists. My own view is that, if you're going to use a measure with poor validity, you might as well use something more fun — why not astrology or personality-typologies based on your favorite color, comic, book, 54 or film?

#### [STOP]

If this is your response, my advice ends here.

2. To make an important decision based upon your own or someone else's personality: Yep. I think most people — myself included — choose to believe that many decisions in life can be optimized by identifying the choice that fits who we are as a person... based on our individual differences. Unfortunately, I am reluctant to give advice about personality assessment for this type of purpose. Others will do it (often for a fee) but, with a few exceptions, I don't think our field has advanced enough yet to be prescriptive about important outcomes at the level of the individual (though I do think we're getting pretty good at making personality-based predictions for groups). Those who use personality assessments as criteria in important decisions also take other factors into account. Incidentally, I got started on this project because it seemed

<sup>\*</sup>This document is an appendix to *The SAPA Personality Inventory*. Correspondence should be directed to david-condon@northwestern.edu, Department of Medical Social Sciences, Northwestern University, Chicago, Illinois. Please use the following citation information: Condon, D.M. (2017). The SAPA Personality Inventory: an empirically-derived, hierarchically-organized self-report personality assessment model.

<sup>&</sup>lt;sup>52</sup>Consider the 60-item BFI-2 and the 120-Item version of the IPIP-NEO.

<sup>&</sup>lt;sup>53</sup>This is not an uninformed opinion. I think it's fine as a means of encouraging people to recognize the importance of personality. But it's less valid and less insightful than more recently developed tools of personality science. See <a href="https://sapa-project.org/dmc/blog/myersbriggs.html">https://sapa-project.org/dmc/blog/myersbriggs.html</a>

<sup>&</sup>lt;sup>54</sup>Grey squirrel.

logical to me that the development of more empirically-derived measurement tools will (eventually) lead to more sophisticated models for predicting important life outcomes. The tools described here are a step in that direction but not an endpoint.

# [STOP]

If this is your response, my advice ends here.

Many people who give this response also endorse response 3 below.

If this includes you, keep reading.

3. To explore the ways that personality relates to other topics: I like you. There are lots of options and I am happy to talk through the many alternatives if the following recommendations don't work for your needs. I believe the measures described here are as good or better than other widely-used options. But, I'm biased, so don't take my word for it! This Appendix is part of a very long manual that shows every detail of the steps taken to develop these tools, and I encourage you to spend some time understanding my approach. As I'm writing this, preliminary validation analyses have been completed but not yet published. Much more validation work is needed.

To be clear, my long-term goal is to maximize the predictive utility of self-report personality assessments. Like you, I want to understand how and how much personality relates to other stuff. I hope that you benefit from the use of these scales but also that you will provide informed critiques and suggestions that help me and others to achieve this goal.

### [MOVE ON TO QUESTION 2.]

# Q2: How many items are you willing to give each respondent? In other words, how much time do you have to assess each respondent?

Note that my answers to this question assume that you intend to administer all of the same items to each participant. If you're willing and able to use a computer adaptive test or a planned missingness design, my answers would differ — see question 3.

1. Very few items - less than 3 minutes: You don't have time for much. If you have reason to believe that one or more specific personality traits are relevant for your research, look for a match among the 27 factor scales listed in Table A5-1. Each of these scales contains 5 items and you have enough time to ask roughly 15 or fewer items in total, depending on your sample.

#### [STOP]

If this is your response, my advice ends here.

Try a literature review to identify personality traits that match your criterion.

2. 20 to 45 items - 5 minutes +/- 2 minutes: One option is the SPI-20-5 (this is the 5th assessment form listed in Appendix F). It takes 3 to 5 minutes to complete and it's the shortest SPI measure that I'm willing to recommend. As denoted by the name, it contains 20 items and can be scored to provide 5-factor scores that are consistent with Big Five research. The factors are Extraversion, Neuroticism, Conscientiousness, Openness and Agreeableness. These scales correlate reasonably well with the "mini-IPIP" measures (Donnellan et al., 2006) as shown in Figure A5-1, though they actually correlate considerably better with the 50 and 100 item versions of the IPIP Big Five Factor Markers.

A better option would be the SPI-45-5 (the 4th assessment form in Appendix F). These 45 items provide scores on the same 5-factors with greater precision (i.e., higher correlations with IPIP-based alternatives) and higher internal consistency (each form in Appendix F includes a table of internal consistencies at the end). Figure A5-1 shows that correlations with the 50 items of the Big Five Factor Markers (Goldberg, 1992, 1999) after correcting for item overlap range from .79 to .84.<sup>55</sup> It takes about 7 minutes.

If you are interested in more narrowly-defined facets, you might consider giving the "signal items" listed in the 6th form in Appendix F. This list includes one item from each of the 27 facets. The items were

<sup>&</sup>lt;sup>55</sup>Correlations with the 44-item Big Five Inventory (John and Srivastava, 1999) and the 60-item Big Five Inventory-2 (Soto and John, 2016) are forthcoming.

identified based on informativeness using item-response scoring in the full sample of 126,884 participants (see the manuscript associated with this Appendix for more information about the sample). While single-item measures can be problematic for many reasons (particularly with small samples), this approach could be useful for hypothesis generation and/or exploratory analyses. I have also been asked to develop an option that blends the 20-item 5-factor form and the 27-factor signal items form. In response, I have developed a 35-item measure that contains all of the signal items and 8 additional items in order to produce acceptably reliable 5-factor scores. I do not believe these 5-factor scales are as good as those in the 20-item measure but they remain a good option for researchers who want the shortest possible hierarchical measure. This is the last form in Appendix F.

#### [STOP]

If this is your response, my advice ends here.

3. I want a good measure and I'm willing to give up to 15 minutes: Nice. I recommend the SPI-81-27&5 (this is the 2nd assessment form in Appendix F). This measure has 81 items and it can be scored to produce good 5-factor scores and coarse measures of the 27-factor scales. The 27-factor scores provide measurement of more narrowly defined constructs than the broader 5-factor scores; for most outcomes, the 27-factor scores are likely to be more highly predictive than the 5-factor outcomes. Correlations between the 5-factor scores for these 81 items and the 100 items of the IPIP Big Five Factor Markers are shown in Figure A5-1 and range from .78 to .85. These 81 items will take most participants 10 to 14 minutes.

## [STOP]

If this is your response, my advice ends here.

4. I want to do it right because personality is a critical component of my research: Yay! Give the SPI-135-27&5 (the 1st assessment form in Appendix F). Or give an even larger item set in order to compare the SPI scales with others and/or conduct exploratory analyses of structure.

# [MOVE ON TO QUESTION 3.]

#### Q3: How will you collect and score the data?

There are really two questions to consider here — mode and method. Electronic survey administration is generally preferred because it helps to reduce errors stemming from human coding and higher rates of accidental data loss. Unfortunately, some populations lack familiarity with or access to the electronic equipment needed for assessments in this mode. In these cases, assessment via paper forms or proxy administration (in-person or by telephone) are good alternatives. Most researchers using paper forms administer all of the same items to all participants, though some occasionally do use two or more forms with overlapping subsets of items. Proxy administration (e.g., verbal administration of the items by another person or by interactive voice response survey software) is particularly useful when administering items to illiterate populations.

With both proxy and electronic administrations, researchers have considerable flexibility in terms of the method of administration. It is most common to administer all of the same items in the same sequential order to all participants. However, there are often good reasons for administering various subsets of the items using a planned missingness or computer adaptive testing design. Planned missingness can be useful because it allows for the administration of more items than any single participant is willing or able to answer. Computer adaptive tests are useful because they allow for precise and valid individual assessments with relatively few items. This reduces participant burden as well as the time and resources needed for data collection.

#### [MOVE ON TO QUESTION 3.]

#### Q4: How should the scores be interpreted?

This is a deceptively complicated question. The technical, statistical answer is easy enough — the scores should be compared to some reference group. The trouble is that it's hard to say which one. The only generalizable answer seems to be "Well, it depends on the rationale for assessment in the first place." We

know that there are age, gender, and cultural effects on personality. Many other grouping variables are also likely to be relevant as are combinations of grouping variables (old male Australians, young female Peruvians). The extent to which these variables should be "controlled for" when evaluating an individual's score(s) should depend on the extent to which these variables are relevant for the outcome under considerations. We have generated SPI-27 and SPI-5 norms based on age and gender (see Appendix F); the publicly-available data used to develop these norms could be used to generate many other categories of norms as well.

Of course, the use of norms based on "normal" populations tends to indicate that most people are mainly average on most personality traits. Many people find this disappointing, presumably because we all suffer from biased anecdotal experiences that lead us to conclude that we're unique in many ways. Yet, when all the dimensions of individual differences are reduced down to only 5 factors and our scores are compared to others of our age and gender... it turns out that most people are mostly average.

There is also the question of what should be done when statistically deviant scores are identified. The development of guidance will require considerably more validation data than is currently available and the nature of the guidance itself will likely vary considerably across the facets. Extreme scores on many of the facets are likely to indicate maladaptive behaviors, but the nature and consequence of this maladaptiveness will differ by facet. Extremely low self-discipline, for example, may generally be positively correlated with poor physical health, but the merits of an immediate intervention will likely depend on many other factors (e.g., more direct physical evidence of poor health). For the time being, the most advisable course of action in response to extreme scores in one or more facets is follow-up assessment in the domains where problems are suspected.

Table A5-1: SPI27 items by factor

	Item Content	SPI27 Factor	SPI27 Coding	SPI5 Factor (invariant)
q_90	Am concerned about others.	Compassion	+	Agreeableness
$q_{-}253$	Am sensitive to the needs of others.	Compassion	+	Agreeableness
	Sympathize with others feelings.	Compassion	+	Agreeableness
q_851	Feel sympathy for those who are worse off than myself.	Compassion	+	Agreeableness
	Think of others first.	Compassion	+	Agreeableness
q_952	Get angry easily.	Irritability	+	NA
	Lose my temper.	Irritability	+	Neuroticism
	Rarely get irritated.	Irritability	-	Neuroticism
q_1683 q_176	Seldom get mad. Am not easily annoyed.	Irritability	-	Neuroticism Neuroticism
	Usually like to spend my free time with people.	Irritability Sociability	+	Extraversion
q_1904 q_312	Avoid company.	Sociability	-	Extraversion
q_512 q_684	Dont like crowded events.	Sociability	-	Extraversion
	Like going out a lot.	Sociability	+	Extraversion
	Want to be left alone.	Sociability	-	Extraversion
q_578	Dislike myself.	WellBeing	_	Neuroticism
q_811	Feel a sense of worthlessness or hopelessness.	WellBeing	_	Neuroticism
	Love life.	WellBeing	+	Extraversion
	Am happy with my life.	WellBeing	+	NA
q_820	Feel comfortable with myself.	WellBeing	+	Neuroticism
	Love dangerous situations.	SensationSeeking	+ +	Agreeableness
q_1664	Seek danger.	SensationSeeking	+	Agreeableness
	Seek adventure.	SensationSeeking	+	Extraversion
	Take risks.	SensationSeeking	+	Extraversion
q_598	Do crazy things.	SensationSeeking	+	Extraversion
$q_{-}4249$	Would call myself a nervous person.	Anxiety	+++	Neuroticism
	Worry about things.	Anxiety	+	Neuroticism
	Am a worrier.	Anxiety	+	Neuroticism
	Panic easily.	Anxiety	+	Neuroticism
q_808	Fear for the worst.	Anxiety	+	Neuroticism
	Tell a lot of lies.	Honesty	-	Agreeableness
	Tell the truth.	Honesty	+	NA
	Cannot imagine lying or cheating.	Honesty	+	NA
	Use others for my own ends.	Honesty	-	Agreeableness
q_501	Cheat to get ahead.	Honesty	-	Agreeableness
q_904	Find it difficult to get down to work.	Industry	+	Conscientiousness
	Start tasks right away.	Industry	+	Conscientiousness
	Work hard. Neglect my duties.	Industry Industry	+	Conscientiousness Conscientiousness
	Need a push to get started.	Industry	-	Conscientiousness
	Learn things slowly.	Intellect	-	Openness
q_1233 q_240	Am quick to understand things.	Intellect	+	Openness
q_493	Catch on to things quickly.	Intellect	+	Openness
q_422	Can handle a lot of information.	Intellect	+	Openness
q_1834		Intellect	+	Openness
q_128	Am full of ideas.	Creativity	+	Openness
	Am able to come up with new and different ideas.	Creativity	+	Openness
	Am an original thinker.	Creativity	+	Openness
	Love to think up new ways of doing things.	Creativity	+	Openness
	Have a vivid imagination.	Creativity	+	Openness
q_35	Act without thinking.	Impulsivity	+ + +	NA
	Make rash decisions.	Impulsivity	+	NA
	Jump into things without thinking.	Impulsivity	+	NA
$q_{-}4223$	Stop to think things over before doing anything.	Impulsivity	-	NA
$q_{-}4276$	Often make decisions on the spur of the moment.	Impulsivity	+	NA
q_1416	Make myself the center of attention.	AttentionSeeking	+	Extraversion
q_1296		AttentionSeeking	+	Extraversion
$q_{-}565$	Dislike being the center of attention.	AttentionSeeking	-	Extraversion
	Put on a show to impress people.	AttentionSeeking	+	Extraversion
	Hate being the center of attention.	AttentionSeeking	-	Extraversion
	Keep things tidy.	Order	+	Conscientiousness
	Leave a mess in my room.	Order	+	Conscientiousness
q_1483	Often forget to put things back in their proper place.	Order	-	Conscientiousness
q_169	Am not bothered by disorder.	Order	-	Conscientiousness
	Like order.	Order	+	Conscientiousness
q_369	Believe laws should be strictly enforced.	Authoritarianism	+	Conscientiousness
q_398	Believe that we should be tough on crime.	Authoritarianism	+ +	Conscientiousness
q_1624		Authoritarianism	+	NA Canadiantiananaa
$q_{-}1867$	Try to follow the rules. Rebel against authority.	Authoritarianism Authoritarianism	+	Conscientiousness
a 1600		AULHOFHARIANISM	-	Openness
q_1609			1	•
q_1609 q_254 q_901	Am skilled in handling social situations. Find it difficult to approach others.	Charisma Charisma	+	Extraversion Extraversion

(continued on next page)

Table A5-1: SPI27 items by factor

q_131 q_1242 q_1855	Have a natural talent for influencing people.  Am good at making impromptu speeches.	Charisma		
q_1242 q_1855	Am good at making impromptu speeches		+	Extraversion
q_1855		Charisma	+	NA
	Lack the talent for influencing people.	Charisma	-	Extraversion
4900	Trust what people say.	Trust	+	Agreeableness
	Trust people to mainly tell the truth.	Trust	+	Agreeableness
	Believe that others have good intentions.	Trust	+	Agreeableness
	Feel that most people cant be trusted.	Trust	-	Agreeableness
	Believe that people are basically moral.	Trust	+	Agreeableness
	Laugh a lot.	Humor	+	Extraversion
	Laugh aloud.	Humor	+	Extraversion
	Laugh my way through life.	Humor	+	Extraversion
	Amuse my friends.	Humor	+	Extraversion
	Seldom joke around.	Humor	-	NA
	Am open about my feelings.	EmotionalExpressiveness	+	Extraversion
	Have difficulty expressing my feelings.	EmotionalExpressiveness	-	Extraversion
	Show my sadness.	EmotionalExpressiveness	+	Neuroticism
	Reveal little about myself.	EmotionalExpressiveness	-	Extraversion
	Express myself easily.	EmotionalExpressiveness	+	Extraversion
	Do not enjoy going to art museums.	ArtAppreciation	-	Openness
	Believe in the importance of art.	ArtAppreciation	+	NA
	Do not like art.	ArtAppreciation	-	Openness
	Have read the great literary classics.	ArtAppreciation	+	Openness
	Do not like poetry.	ArtAppreciation	-	Openness
	Love to reflect on things.	Introspection	+	Openness
	Spend time reflecting on things.	Introspection	+	Openness
	Try to understand myself.	Introspection	+	Openness
	Enjoy examining myself and my life.	Introspection	+	Openness
	Like to get lost in thought.	Introspection	+ +	Openness
	Dislike imperfect work.	Perfectionism	+	Conscientiousness
	Want every detail taken care of.	Perfectionism	+ +	Conscientiousness
$q_{-}1694$	Set high standards for myself and others.	Perfectionism	+	Conscientiousness
$q_{-}530$	Continue until everything is perfect.	Perfectionism	+	Conscientiousness
	Am hard to satisfy.	Perfectionism	+ + +	Agreeableness
	Never splurge.	SelfControl	+	NA
$q_{-}1590$	Rarely overindulge.	SelfControl	+	NA
$q_{-}1461$	Never spend more than I can afford.	SelfControl	+ + +	NA
	Am able to control my cravings.	SelfControl	+	NA
	Easily resist temptations.	SelfControl	+	Conscientiousness
$q_{-}1300$	Like to be thought of as a normal kind of person.	Conformity	+	Openness
$q_{-}2005$	Would hate to be considered odd or strange.	Conformity	+	Openness
$q_{-}747$	Enjoy being thought of as a normal mainstream person.	Conformity	+	Openness
$q_{-}152$	Am just an ordinary person.	Conformity	+	Openness
	See myself as an average person.	Conformity	+	Openness
$q_{-}566$	Dislike changes.	Adaptability	-	Neuroticism
	Dont like the idea of change.	Adaptability	-	NA
	Prefer variety to routine.	Adaptability	+	Openness
	Adjust easily.	Adaptability	+	NA
	Like to begin new things.	Adaptability	+	Openness
	Like to take it easy.	EasyGoingness	+	NA
	Like a leisurely lifestyle.	EasyGoingness	+	NA
	Have a slow pace to my life.	EasyGoingness	+	Extraversion
	Hang around doing nothing.	EasyGoingness	+	Conscientiousness
	Let things proceed at their own pace.	EasyGoingness	+	NA
$q_{-}1840$	Think that my moods dont change more than most peoples do.	EmotionalStability	-	Neuroticism
	Experience very few emotional highs and lows.		-	Neuroticism
	Get overwhelmed by emotions.	EmotionalStability	+	Neuroticism
	Experience my emotions intensely.	EmotionalStability	+	Neuroticism
	Am not easily affected by my emotions.	EmotionalStability	-	NA
	Tend to vote for conservative political candidates.	Conservatism	+	NA
	Dont consider myself religious.	Conservatism	-	NA
	Believe in one true religion.	Conservatism	+	NA
	Tend to vote for liberal political candidates.	Conservatism	-	NA
q_1328	Like to stand during the national anthem.	Conservatism	+	NA

Table A5-2: SPI5 items by factor

	Item Content	SPI5 Factor	SPI5 Coding	SPI27 Factor
q_90	Am concerned about others.	Agreeableness	+	Compassion
q_253	Am sensitive to the needs of others.	Agreeableness	+	Compassion
q_1763	Sympathize with others feelings.	Agreeableness	+	Compassion
q_851	Feel sympathy for those who are worse off than myself.	Agreeableness	+	Compassion
q_1832	Think of others first.	Agreeableness	+	Compassion
q_4296	Tell a lot of lies.	Agreeableness	_	Honesty
q_1896	Use others for my own ends.	Agreeableness	-	Honesty
q_501	Cheat to get ahead.	Agreeableness	_	Honesty
q_1855	Trust what people say.	Agreeableness	+	Trust
q_4289	Trust people to mainly tell the truth.	Agreeableness	+	Trust
q_377	Believe that others have good intentions.	Agreeableness	+	Trust
q_871	Feel that most people cant be trusted.	Agreeableness	-	Trust
q_379	Believe that people are basically moral.	Agreeableness	+	Trust
q_142	Am hard to satisfy.	Agreeableness	-	Perfectionism
q_904	Find it difficult to get down to work.	Conscientiousness	_	Industry
q_1744	Start tasks right away.	Conscientiousness	+	Industry
	Work hard.	Conscientiousness	+	Industry
	Neglect my duties.	Conscientiousness	-	Industry
q_1444 q_1444		Conscientiousness	-	Industry
		Conscientiousness		Order
	Keep things tidy.		+	
	Leave a mess in my room.	Conscientiousness	-	Order
	Often forget to put things back in their proper place.	Conscientiousness	-	Order
	Like order.	Conscientiousness	+	Order
q_369	Believe laws should be strictly enforced.	Conscientiousness	+	Authoritarianism
q_1867	Try to follow the rules.	Conscientiousness	++	Authoritarianism
q_1915	Want every detail taken care of.	Conscientiousness	+	Perfectionism
$q_{-}1694$	Set high standards for myself and others.	Conscientiousness	+	Perfectionism
q_530	Continue until everything is perfect.	Conscientiousness	+	Perfectionism
$q_{-}240$	Am quick to understand things.	Openness	+	Intellect
$q_422$	Can handle a lot of information.	Openness	+	Intellect
$q_{-}1834$	Think quickly.	Openness	+	Intellect
$q_{-}128$	Am full of ideas.	Openness	+	Creativity
q_2745	Am able to come up with new and different ideas.	Openness	+	Creativity
	Am an original thinker.	Openness	+	Creativity
q_1392	Love to think up new ways of doing things.	Openness	+ + + + + + + + + +	Creativity
	Have a vivid imagination.	Openness	+	Creativity
	Rebel against authority.	Openness	<u>.</u>	Authoritarianism
	Love to reflect on things.	Openness	<u>.</u>	Introspection
	Spend time reflecting on things.	Openness	<u>.</u>	Introspection
	Try to understand myself.	Openness	+	Introspection
	Like to get lost in thought.	Openness	+	Introspection
q_747	Enjoy being thought of as a normal mainstream person.	Openness	-	Conformity
q_1585		Neuroticism	_	Irritability
q_1683	Seldom get mad.	Neuroticism	-	Irritability
	Am not easily annoyed.	Neuroticism	-	Irritability
q_176		Neuroticism		
q_578	Dislike myself. Feel a sense of worthlessness or hopelessness.	Neuroticism	+	WellBeing
q_811			+ + + + +	WellBeing
	Would call myself a nervous person.	Neuroticism	+	Anxiety
	Worry about things.	Neuroticism	+	Anxiety
	Am a worrier.	Neuroticism	+	Anxiety
	Panic easily.	Neuroticism		Anxiety
q_808	Fear for the worst.	Neuroticism	+	Anxiety
	Think that my moods dont change more than most peoples do.		-	EmotionalStability
$q_{-}797$	Experience very few emotional highs and lows.	Neuroticism	-	EmotionalStability
q_979	Get overwhelmed by emotions.	Neuroticism	+	EmotionalStability
$q_{-}793$	Experience my emotions intensely.	Neuroticism	+	EmotionalStability
$q_{-}1904$	Usually like to spend my free time with people.	Extraversion	+	Sociability
$q_{-}312$	Avoid company.	Extraversion	-	Sociability
$q_{-}684$	Dont like crowded events.	Extraversion	-	Sociability
$q_{-}4243$	Like going out a lot.	Extraversion	+	Sociability
q_1923	Want to be left alone.	Extraversion	-	Sociability
q_1416	Make myself the center of attention.	Extraversion	+	AttentionSeeking
q_1296	Like to attract attention.	Extraversion	+	AttentionSeeking
q_565	Dislike being the center of attention.	Extraversion	-	AttentionSeeking
q_1027	Hate being the center of attention.	Extraversion	-	AttentionSeeking
q_254	Am skilled in handling social situations.	Extraversion	+	Charisma
q_901	Find it difficult to approach others.	Extraversion	-	Charisma
q_1243	Laugh a lot.	Extraversion	+	Humor
q_1244	Laugh aloud.	Extraversion	+	Humor
q_803	Express myself easily.	Extraversion	+	EmotionalExpressiveness
4-500			ı	nonananzarpressiveness

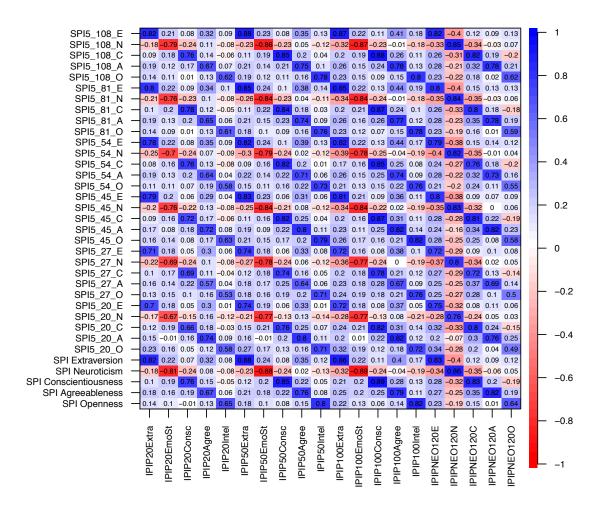


Figure A5-1: Correlations (corrected for item overlap) among the various SPI scales and extant IPIP-based sets of measures.