

Primals Inventories Administration Instructions

Updated February 2021

By J. D. W. Clifton

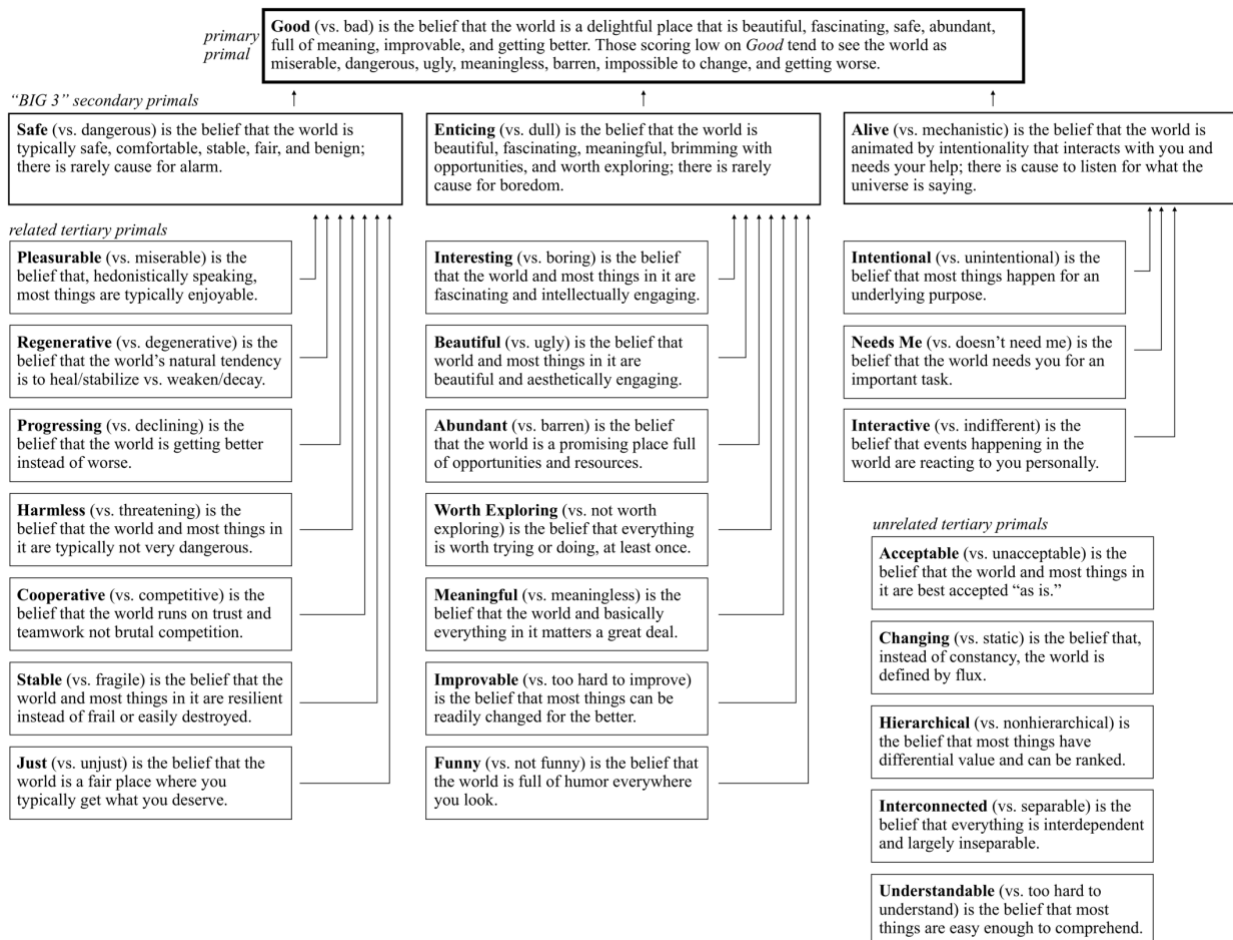
cliftonj@sas.upenn.edu

Purpose of Document

The purpose of this document is to equip researchers of any methodological background to confidently measure primals for research purposes. Though my permission is not necessary to use my scales for research, please do reach out anyway. I value hearing what you're exploring and can connect like-minded researchers. Sometimes limited financial resources are available.

What are Primals?

Primals, also called *primal world beliefs*, are an individual's most basic beliefs about the general character of the world. In the first scientific effort to map major primals, we (Clifton et al., 2019) found 26 hierarchically arranged dimensions (see figure with definitions from Clifton & Kim, 2020). At the bottom are twenty-two *tertiary* primals. Of these, seventeen group into three clusters or *secondary* primals called *Safe*, *Enticing*, and *Alive*. In turn, these form one supercluster or *primary* primal concerning overall *Good* world belief.



Primals are thought to be psychologically worth studying largely because beliefs about a situation are known to strongly influence thought and action while one is in that situation. When in a place seen as dangerous, for example, people are more alert. If this principle applies to beliefs about the world as a whole, then primals theoretically influence a vast array of personality and wellbeing variables known to be highly correlated with certain primals, such as curiosity and *Enticing*, neuroticism and *Safe*, and spirituality and *Alive*.

How are Primals Measured?

- A 6 item Primals Inventory (PI-6) measures *Good* only.
- An 18 item Primals Inventory (PI-18) measures *Good*, *Safe*, *Enticing*, and *Alive*
- The full 99 item Primals Inventory (PI-99) measures all 26 primals

To see how these measures compare to other world belief measures, see Clifton (in press).

Which scale should I use?

It depends. The PI-99 is preferable as the gold standard, but long. Its use may be most valuable at the beginning of an exploration of how primals intersect with a variable, because researchers (myself especially) can be wrong about which primals are associated with a variable of interest. For example, a long-held finding in the political psychology literature has been that conservatives see the world as meaningfully more dangerous than liberals do, but this is not the case (Clifton, 2020a). There is also value in gaining a reasonably comprehensive understanding of what the world looks like from the perspective of those who score high/low on a variable. If the PI-99 is used, consider pre-registering hypotheses to avoid multiple comparison problems that arise from measuring 26 variables at once (see brief discussion of multiple comparison problems in primals research in Clifton & Miendl, 2021).

Though the PI-18 is often the best balance of brevity and granularity, for many outcomes the PI-6 may be the only measure needed. Overall *Good* world belief explains a great deal of variance in primals (about a third) and is typically the primal most correlated to outcomes humans care about (e.g., depression, wellbeing, life satisfaction).

However, when length matters, the PI-6 and PI-18 still make good starting points. One reason is that some items were purposefully retained for being typically more associated with particular primals at lower levels of granularity. For example, though the PI-6 measures *Good* only, one item in the PI-6 consistently correlates higher with *Enticing* than the other items (“In life, there's way more beauty than ugliness”). A few such items were included purposefully, allowing researchers to examine item-level correlations for clues—tentative though they may be—suggesting future research paths. If such item-level analysis is attempted, keep in mind that some of these items are better indicators than others. Researchers can consult tables in Clifton and Yaden’s (2021, p. 23-26) supplement showing precisely how much particular items in the PI-6

and P-18 correlate to primals as measured by the PI-99, at least in one sample of about 2,000 subjects who took both scale versions.

Another option is to mix and match subscales across scale versions to achieve brevity. For example, if interested in only *Enticing* and its related tertiary primal *Funny*, a researcher has three options:

1. Administer the full PI-99
2. Administer 29 items from the PI-99, consisting of the 28-item *Enticing* subscale and the 4-item *Funny* subscale (three *Funny* items are already in the *Enticing* subscale)
3. Administer only 11 items total, consisting of the 7-item *Enticing* subscale from the PI-18 and 4-item *Funny* subscale from the PI-99

Option 3 may often be the best approach. Feel free to reach out for advice concerning how to mix and match subscales to achieve your goals.

However, when such mixing and matching is done, it may be worth keeping two things in mind. First, subscales measuring more general primary or secondary primals (e.g., *Enticing*) should probably precede subscales measuring the more specific secondary or tertiary primals (e.g., *Funny*) in keeping with good measurement practice (explanation of why in Clifton, 2020b). Second, even though these inventories were designed with such mixing and matching in mind, few permutations have been validated (there are hundreds of possibilities). To partly compensate for this, I recommend checking reliability *and* dimensionality for each use. So far, mixing/matching efforts have produced good results psychometrically and I suspect that trend to continue for several reasons. For example, when validating the PI-99, items were administered in a different random order for different participants, yet subscale internal reliability and test-retest reliability was high—and administering subscales in unidimensional clusters only increases reliability. Robustness is further suggested by strong correspondence across the three versions of the Primals Inventory. Psychometric signal from these latent variables is typically strong.

What do I cite?

PI-99 users can cite our original (Clifton et al., 2019) paper in which the PI-99 was validated.

Clifton, J. D. W., Baker, J. D., Park, C. L., Yaden, D. B., Clifton, A. B. W., Terni, P., Miller, J. L., Zeng, G., Giorgi S., Schwartz, H. A., & Seligman, M. E. P. (2019). Primal world beliefs. *Psychological Assessment*, *31*(1), 82-99.

<https://doi.org/10.1037/pas0000639>

PI-6 and PI-18 users can additionally cite the below manuscript currently under review.

Clifton, J. D. W., & Yaden, D. B. (2021). *Brief Measures of the Four Highest-Order Primal World Beliefs*. [Manuscript submitted for publication]. Department of Psychology, University of Pennsylvania.

Participant Instructions

Instructions are the same for all three Primals Inventories. They appear at the top of the page with the bolded phrase as indicated.

Below are very general statements about the world—not the world we wish we lived in, but the actual world as it is now. Please share your sense of agreement or disagreement. When in doubt, go with what initially **feels true of the real world**. There are no wrong answers. There's no need to overthink.

The full PI-18 and PI-6 can appear on one page, as they were validated. If administering the PI-99 items over multiple pages, they can be distributed over 3 pages with, as validated, the following instructions on the top of the second page were, as follows:

Good work!

Remember, when in doubt, go with what initially feels most accurate to the real world. You can be totally honest.

Instructions on the third page were as follows:

You are doing great. Keep up the good work!

Response Options

Response options are on a six point 0-5 scale: (5) Strongly agree, (4) Agree, (3) Slightly Agree, (2) Slightly Disagree, (1) Disagree, and (0) Strongly disagree. Final scores should be on a 0-5 scale where 5 is scoring high on that primal. Numbers are not viewable to respondents. Items are forced response to avoid missing data.

Attention Checks

We originally used three attention checks listed below to validate the PI-99. These days I sometimes use all three, one (the first below, which is included in the PI-6 and PI-18), or none, depending on expected need to screen responses.

Please mark this statement “slightly disagree.”

If you are doing your best to complete this survey honestly, please strongly agree with this statement.

Please slightly agree with this statement.

Item Order

The PI-99 was validated having all items (and attention checks) administered in a different random order for each participant. This is the preferable method of administration for the PI-99. The PI-6 and PI-18, however, were created with additional practical research purposes in mind, including pen and pencil administration. Thus, Clifton and Yaden (2021) validated the PI-18 and PI-6 in the fixed order below. A validated fixed order for the PI-99 is also available at www.authentic happiness.org (under “Questionnaires” tab, then “Primals Inventory”).

Copyright Notice

The following copyright notice should make an appearance at some point, probably at the bottom of pages that have Primals Inventory items on them:

© 2018 by Jeremy D. W. Clifton. All rights reserved.

Example Format

For illustration, here is a screenshot of how I typically format items/instructions on Qualtrics.

Below are very general statements about the world—not the world we wish we lived in, but the actual world as it is now. Please share your sense of agreement or disagreement. When in doubt, go with what initially **feels true of the real world**. There are no wrong answers. There's no need to overthink.

Everything happens for a reason and on purpose.

Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Most situations in life need to be improved, not accepted.

Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

PI-6 Items

The 6 items in the PI-6 measuring Good (vs. bad) world belief are provided below in the order validated by Clifton and Yaden (2021). Suggested item labels—the ones I use in my own code—include the first letter of the associated primal, the first letter of its opposite, a number, and an “x” indicating if it will need to be reverse scored.

- gb1 Most things in the world are good.
- gb2 In life, there's way more beauty than ugliness.
- gb3x Most things have a habit of getting worse.
- gb4x On the whole, the world is an uncomfortable and unpleasant place.
- gb5 Good things in the world outweigh the bad things.
Please mark this statement “slightly disagree.” (optional attention check)
- gb6x On the whole, the world is a bad place.

PI-6 SAS Code

*To reverse-score 3 items;

$gb3xr=5-gb3x$; $gb4xr=5-gb4x$; $gb6xr=5-gb6x$;

*To compute scores on the primary primal;

$Good=(gb1+gb2+gb3xr+gb4xr+gb5+gb6xr)/6$;

PI-18 Items

The 18 items in the PI-18 are provided below in the order validated by Clifton and Yaden (2021).

- ed1 In life, there's way more beauty than ugliness.
 am1 It often feels like events are happening in order to help me in some way.
 sd1 I tend to see the world as pretty safe.
 am2 What happens in the world is meant to happen.
 ed2x While some things are worth checking out or exploring further, most things probably aren't worth the effort.
 ed3x Most things in life are kind of boring.
 ed4 The world is an abundant place with tons and tons to offer.
 ed5 No matter where we are or what the topic might be, the world is fascinating.
 ed6x The world is a somewhat dull place where plenty of things are not that interesting.
 sd2x On the whole, the world is a dangerous place.
 sd3x Instead of being cooperative, the world is a cut-throat and competitive place.
 am3x Events seem to lack any cosmic or bigger purpose.
 sd4x Most things have a habit of getting worse.
 am4 The universe needs me for something important.
 sd5 Most things in the world are good.
 Please mark this statement "slightly disagree." (optional attention check)
 am5 Everything happens for a reason and on purpose.
 sd6 Most things and situations are harmless and totally safe.
 ed7 No matter where we are, incredible beauty is always around us.

PI-18 SAS Code

*To reverse-score 7 items;

sd2xr=5-sd2x; sd3xr=5-sd3x; sd4xr=5-sd4x; ed2xr=5-ed2x; ed3xr=5-ed3x;
 ed6xr=5-ed6x; am3xr=5-am3x;

*To compute scores;

Good=(sd1+sd2xr+sd3xr+sd4xr+sd5+sd6+ed1+ed2xr+ed3xr+ed4+ed5+ed6xr+
 ed7+am1+am4)/15; *only two Alive items are included;

Safe=(sd1+sd2xr+sd3xr+sd4xr+sd5+sd6)/6;

Enticing=(ed1+ed2xr+ed3xr+ed4+ed5+ed6xr+ed7)/7;

Alive=(am1+am2+am3xr+am4+am5)/5;

PI-99 Items

The 99 items in the PI-99 are provided in the table below. Each is grouped by tertiary primal listed in alphabetical order.

X indicates that the corresponding item is also used to compute *Good*, *Safe*, *Enticing*, or *Alive*.

* indicates one of 39 reverse-scored items.

° indicates one of three items that are not used to measure any of the tertiary primals.

Items	Suggested Label	<i>Good</i> 71 items	<i>Safe</i> 29 items	<i>Enticing</i> 28 items	<i>Alive</i> 14 items
<i>Abundant</i> (vs. barren; 4 items)					
The world is an abundant place.	ab1	X	.	X	.
The world feels like a barren place with few opportunities.*	ab2x	X	.	X	.
Life overflows with opportunity and abundance.	ab3	X	.	X	.
The world is an abundant place with tons and tons to offer.	ab4	X	.	X	.
<i>Acceptable</i> (vs. unacceptable; 4 items)					
The world needs to be continually improved rather than accepted.*	au1x	.	.	.	.
Most situations in life need to be improved, not accepted.*	au2x	.	.	.	.
Rather than accepting things as they are, the world needs to be improved as much as possible.*	au3x	.	.	.	.
It's usually better to accept a situation than try to change it.	au4	.	.	.	.
<i>Beautiful</i> (vs. ugly; 4 items)					
Though some things are incredibly beautiful, they're few and far between.*	bu1x	X	.	X	.
Nearly everything in the world is beautiful.	bu2	X	.	X	.
In life, there's way more beauty than ugliness.	bu3	X	.	X	.
There is beauty everywhere, no matter where we look.	bu4	X	.	X	.
<i>Changing</i> (vs. static; 5 items)					
Everything feels like it's shifting and changing.	cs1	.	.	.	.
I feel like everything changes all the time.	cs2	.	.	.	.
Everything feels like a whirl of constant change.	cs3	.	.	.	.
The world is a place where most things stay pretty much the same.*	cs4x	.	.	.	.
Everything feels like it's constantly moving, changing, and up in the air.	cs5	.	.	.	.
<i>Cooperative</i> (vs. competitive; 4 items)					
Instead of being cooperative, life is a brutal contest where you got to do whatever it takes to survive.*	cc1x	X	X	.	.

Items	Suggested Label	<i>Good</i> 71 items	<i>Safe</i> 29 items	<i>Enticing</i> 28 items	<i>Alive</i> 14 items
For all life—from the smallest organisms, to plants, animals, and for people too—everything is a cut-throat competition.*	cc2x	X	X	.	.
Instead of being cooperative, the world is a cutthroat and competitive place.*	cc3x	X	X	.	.
The world runs on trust and cooperation way more than suspicion and competition.	cc4	X	X	.	.
<i>Funny</i> (vs. humorless; 4 items)					
The world is hilarious; if we aren't laughing, we aren't paying attention.	fh1	X	.	X	.
There's humor in everything.	fh2	X	.	X	.
While some things are humorous, most of the time the world is not that funny.*	fh3x	X	.	.	.
Laughing a ton makes sense because life is hilarious and humor is everywhere.	fh4	X	.	X	.
<i>Harmless</i> (vs. threatening; 5 items)					
Real danger is everywhere; even if we don't notice it.*	ht1x	X	X	.	.
Most things and situations are harmless and totally safe.	ht2	X	X	.	.
I tend to see the world as pretty safe.	ht3	X	X	.	.
On the whole, the world is a dangerous place.*	ht4x	X	X	.	.
On the whole, the world is a safe place.	ht5	X	X	.	.
<i>Hierarchical</i> (vs. nonhierarchical; 5 items)					
Most things in the world could be ranked in order of importance.	hn1	.	.	.	.
Humans, animals, plants, and pretty much everything else can be organized by how important or good they are.	hn2	.	.	.	.
Most things can be organized into hierarchies, rankings, or pecking orders that reflect true differences among things.	hn3	.	.	.	.
Most things aren't better or worse. It's hard to organize the world into hierarchies, rankings, or pecking orders that reflect true differences.*	hn4x	.	.	.	.
Things are rarely equal. Most plants and animals, and even people, are better or worse than one another.	hn5	.	.	.	.

Items	Suggested Label	Good 71 items	Safe 29 items	Enticing 28 items	Alive 14 items
<i>Improvable</i> (vs. too hard to improve; 5 items)					
It's possible to significantly improve basically anything encountered in life.	it1	X	.	.	.
In most situations, making things way better is absolutely possible.	it2	X	.	X	.
Most things and situations are responsive, workable, and totally possible to improve.	it3	X	.	X	.
Most situations seem really difficult if not impossible to improve.*	it4x	X	.	.	.
No matter who you are, you can significantly improve the world you live in.	it5	X	.	X	.
<i>Intentional</i> (vs. unintentional; 5 items)					
Events happen according to a broader purpose.	iu1	.	.	.	X
What happens in the world is meant to happen.	iu2	.	.	.	X
Events seem to lack any cosmic or bigger purpose.*	iu3x	.	.	.	X
The universe doesn't care if events happen one way or another.*	iu4x	.	.	.	X
Everything happens for a reason and on purpose.	iu5	.	.	.	X
<i>Interactive</i> (vs. indifferent; 5 items)					
Whatever is happening around me often feels related to me or something I've done.	ii1	.	.	.	X
When unsure why something is happening, I often suspect it's got something to do with me.	ii2	.	.	.	.
Much of what happens around me feels like it's because of me or related to me somehow.	ii3	.	.	.	X
My first instinct about events happening around me is that they're unrelated to me or anything I've done.*	ii4x	.	.	.	X
My first instinct about things happening around me is that they have to do with me or something I've done.	ii5	.	.	.	X
<i>Interconnected</i> (vs. atomistic; 4 items)					
Every single thing is connected to everything else.	ia1	.	.	.	.

Items	Suggested Label	<i>Good</i> 71 items	<i>Safe</i> 29 items	<i>Enticing</i> 28 items	<i>Alive</i> 14 items
The world is a place where everything is completely interconnected.	ia2	.	.	.	.
Though things can appear separate and independent, they really aren't. Instead, all is one.	ia3	.	.	.	.
Most things are basically unconnected and independent from each other.*	ia4x	.	.	.	.
<i>Interesting</i> (vs. boring; 4 items)					
Most things in life are kind of boring.*	ib1x	X	.	X	.
While some things are interesting, most things are pretty dull.*	ib2x	X	.	X	.
The world is a somewhat dull place where plenty of things are not that interesting.*	ib3x	X	.	X	.
It feels like interesting and exciting things surround us all the time.	ib4	X	.	X	.
<i>Just</i> (vs. unjust; 5 items)					
On the whole, the world is a place where we get what we deserve.	ju1	X	.	.	.
The world is a place where we rarely deserve what we get.*	ju2x	X	X	.	.
Life will find ways to reward those who do good and punish those who do bad.	ju3	X	.	.	X
The world is a place where working hard and being nice pays off.	ju4	X	X	.	.
If someone is generous and kind, the world will be kind back.	ju5	X	X	.	.
<i>Meaningful</i> (vs. meaningless; 4 items)					
Nothing really matters all that much.*	mm1x	X	.	X	.
Most things are pointless and meaningless.*	mm2x	X	.	X	.
The world is a place where things just don't matter.*	mm3x	X	.	X	.
The world is a place where most everything matters.	mm4	X	.	X	.
<i>Needs Me</i> (vs. doesn't need me; 4 items)					
The universe needs me for something important.	nd1	X	.	.	X
The world needs me and my efforts.	nd2	X	.	.	X

Items	Suggested Label	<i>Good</i> 71 items	<i>Safe</i> 29 items	<i>Enticing</i> 28 items	<i>Alive</i> 14 items
Life has an important part for me to play.	nd3	X	.	.	X
It feels like the world doesn't really need me for anything.*	nd4x	X	.	.	X
<i>Pleasurable</i> (vs. miserable; 5 items)					
Life offers more pain than pleasure.*	pm1x	X	X	.	.
Life in this world is usually pain and suffering.*	pm2x	X	X	.	.
On the whole, the world is a good place.	pm3	X	X	.	.
Most things in the world are good.	pm4	X	X	.	.
Life offers way more pleasure than pain.	pm5	X	X	.	.
<i>Progressing</i> (vs. declining; 4 items)					
On the whole, the world is getting worse.*	pd1x	X	X	.	.
It feels like the world is going downhill.*	pd2x	X	X	.	.
Though the world has problems, on the whole things are definitely improving.	pd3	X	X	.	.
It feels like the world is getting better and better.	pd4	X	X	.	.
<i>Regenerative</i> (vs. degenerative; 4 items)					
Over time, most situations naturally tend to get worse, not better.*	rd1x	X	X	.	.
The usual tendency of most things and situations is to get better, not worse.	rd2	X	X	.	.
Though sometimes situations get worse, usually they get better.	rd3	X	X	.	.
Most things have a habit of getting worse.*	rd4x	X	X	.	.
<i>Stable</i> (vs. fragile; 4 items)					
The world is a place where things are fragile and easily ruined.*	sf1x	X	X	.	.
Most things and situations are delicate and easily destroyed.*	sf2x	X	X	.	.
Most situations are delicate. Though they may be fine now, things could easily unravel.*	sf3x	X	X	.	.
It takes a lot for things to fall apart.	sf4	X	X	.	.
<i>Understandable</i> (vs. too hard to understand; 4 items)					
Most everything is easy enough to understand.	ut1	X	.	.	.
The world is easy enough to understand.	ut2	X	.	.	.

Items	Suggested Label	Good 71 items	Safe 29 items	Enticing 28 items	Alive 14 items
Lots of things in the world are too confusing and difficult to understand.*	ut3x	X	.	.	.
The world is a confusing place where many skills and subjects are too hard to figure out.*	ut4x	X	.	.	.
<i>Worth Exploring (vs. not worth exploring; 4 items)</i>					
Unfamiliar things and places are usually worth trying or checking out.	wn1	X	.	X	.
I feel everything is worth trying, learning about, or exploring further.	wn2	X	.	X	.
Everything deserves to be explored.	wn3	X	.	X	.
To be honest, though some things are worth trying and exploring, most things aren't.*	wn4x	X	.	X	.
On the whole, the world is an uncomfortable and unpleasant place.*°	g1x	X	.	.	.
No matter where we are or what the topic might be, the world is fascinating.°	e1	X	.	X	.
No matter where we are, incredible beauty is always around us.°	e2	X	.	X	.

PI-99 SAS Code

*To reverse-score 39 items;

ab2xr=5-ab2x; au1xr=5-au1x; au2xr=5-au2x; au3xr=5-au3x; bu1xr=5-bu1x;
cs4xr=5-cs4x; cc1xr=5-cc1x; cc2xr=5-cc2x; cc3xr=5-cc3x; fh3xr=5-fh3x;
ht1xr=5-ht1x; ht4xr=5-ht4x; hn4xr=5-hn4x; it4xr=5-it4x; iu3xr=5-iu3x; iu4xr=5-
iu4x; ii4xr=5-ii4x; ia4xr=5-ia4x; ib1xr=5-ib1x; ib2xr=5-ib2x; ib3xr=5-ib3x;
ju2xr=5-ju2x; mm1xr=5-mm1x; mm2xr=5-mm2x; mm3xr=5-mm3x; nd4xr=5-
nd4x; pm1xr=5-pm1x; pm2xr=5-pm2x; pd1xr=5-pd1x; pd2xr=5-pd2x; rd1xr=5-
rd1x; rd4xr=5-rd4x; sf1xr=5-sf1x; sf2xr=5-sf2x; sf3xr=5-sf3x; ut3xr=5-ut3x;
ut4xr=5-ut4x; wn4xr=5-wn4x; g1xr=5-g1x;

*To compute scores for tertiary primals;

Abundant=(ab1+ab2xr+ab3+ab4)/4;
Acceptable=(au1xr+au2xr+au3xr+au4)/4;
Beautiful=(bu1xr+bu2+bu3+bu4)/4;
Changing=(cs1+cs2+cs3+cs4xr+cs5)/5;
Cooperative=(cc1xr+cc2xr+cc3xr+cc4)/4;
Funny=(fh1+fh2+fh3xr+fh4)/4;
Harmless=(ht1xr+ht2+ht3+ht4xr+ht5)/5;
Hierarchical=(hn1+hn2+hn3+hn4xr+hn5)/5;

Improvable= $(it1+it2+it3+it4xr+it5)/5$;
 Intentional= $(iu1+iu2+iu3+iu4xr+iu5)/5$;
 Interactive= $(ii1+ii2+ii3+ii4xr+ii5)/5$;
 Interconnected= $(ia1+ia2+ia3+ia4xr)/4$;
 Interesting= $(ib1xr+ib2xr+ib3xr+ib4)/4$;
 Just= $(ju1+ju2xr+ju3+ju4+ju5)/5$;
 Meaningful= $(mm1xr+mm2xr+mm3xr+mm4)/4$;
 NeedsMe= $(nd1+nd2+nd3+nd4xr)/4$;
 Pleasurable= $(pm1xr+pm2xr+pm3+pm4+pm5)/5$;
 Progressing= $(pd1xr+pd2xr+pd3+pd4)/4$;
 Regenerative= $(rd1xr+rd2+rd3+rd4xr)/4$;
 Stable= $(sf1xr+sf2xr+sf3xr+sf4)/4$;
 Understandable= $(ut1+ut2+ut3xr+ut4xr)/4$;
 WorthExploring= $(wn1+wn2+wn3+wn4xr)/4$;

*To compute scores for secondary primals;

Safe= $(cc1xr+cc2xr+cc3xr+cc4+ht1xr+ht2+ht3+ht4xr+ht5+ju2xr+ju4+ju5+pm1xr$
 $+pm2xr+pm3+pm4+pm5+pd1xr+pd2xr+pd3+pd4+rd1xr+rd2+rd3+rd4xr+$
 $sf1xr+sf2xr+sf3xr+sf4)/29$;

Enticing= $(ab1+ab2xr+ab3+ab4+bu1xr+bu2+bu3+bu4+fh1+fh2+fh4+it2+it3+it5+$
 $ib1xr+ib2xr+ib3xr+ib4+mm1xr+mm2xr+mm3xr+mm4+wn1+wn2+wn3+$
 $wn4xr+e1+e2)/28$;

Alive= $(iu1+iu2+iu3xr+iu4+iu5+ii1+ii3+ii4xr+ii5+ju3+nd1+nd2+nd3+nd4xr)/14$;

*To compute scores for the primary primal;

Good= $(ab1+ab2xr+ab3+ab4+bu1xr+bu2+bu3+bu4+cc1xr+cc2xr+cc3xr+cc4+fh1$
 $+fh2+fh3xr+fh4+ht1xr+ht2+ht3+ht4xr+ht5+it1+it2+it3+it4xr+It5+ib1xr+i$
 $b2xr+ib3xr+ib4+ju1+ju2xr+ju3+ju4+ju5+mm1xr+mm2xr+mm3xr+mm4+$
 $nd1+nd2+nd3+nd4xr+pm1xr+pm2xr+pm3+pm4+pm5+pd1xr+pd2xr+pd3$
 $+pd4+rd1xr+rd2+rd3+rd4xr+sf1xr+sf2xr+sf3xr+sf4+ut1+ut2+ut3xr+ut4xr$
 $+wn1+wn2+wn3+wn4xr+g1xr+e1+e2)/71$;

Comment on Ipsatization

Scores computed as suggested will perform slightly differently than our (Clifton et al., 2019) scores. This is because we ipsatized data to aid factor interpretation. Ipsatization theoretically removes error variance associated with agreement bias. We also found it slightly increases standardized α and correlations with other variables (in the range .01 to .02). However, we do not recommend ipsatization for most research purposes because it adds a step that some may find confusing and hinders some types of analyses. For these reasons, Clifton and Yaden (2021) did not ipsatize when validating the PI-18 and PI-6. Furthermore, in our data, ipsatized and non-ipsatized scores always correlated with each other $> .97$. For those interested in ipsatizing, which

may be desirable when examining dimensionality, instructions for doing so are on page 279 in our (Clifton et al., 2019) supplemental materials.

Public Facing Materials

For clinical and other purposes, all three versions of the scale are publicly available at www.authentic happiness.org where individuals can identify their primals and how they differ from the general population. When appropriate, members of the public interested in primals or score interpretation can be directed to a website made for that purpose (www.myprimals.com) or [this](#) Washington Post article.

Translations

There are now over a dozen Primals Inventory translation efforts that are complete or ongoing, including Spanish (Vazquez et al., 2021) and German (Stahlmann et al., 2020). Please contact me if interested in using these translations or if interested in translating your own. We have developed materials to aid translation efforts.

References

- Clifton, J. D. W. (2020a). *Leveraging the first comprehensive measure of primal world beliefs to further discussions in political, developmental, and positive psychology*. [Doctoral dissertation, University of Pennsylvania]. ScholarlyCommons. <https://repository.upenn.edu/dissertations/AAI28149825>
- Clifton, J. D. W. (2020b). Managing validity versus reliability trade-offs in scale-building decisions. *Psychological Methods*, 25(3), 259–270. <https://doi.org/10.1037/met0000236>
- Clifton, J. D. W. (in press). Measuring primal world beliefs. In W. Ruch, A. Bakker, L. Tay, & F. Gander (Eds.), *Handbook of positive psychology assessment*. European Association of Psychological Assessment.
- Clifton, J. D. W., Baker, J. D., Park, C. L., Yaden, D. B., Clifton, A. B. W., Terni, P., Miller, J. L., Zeng, G., Giorgi, S., Schwartz, H. A., & Seligman, M. E. P. (2019). Primal world beliefs. *Psychological Assessment*, 31(1), 82–99. <https://doi.org/10.1037/pas0000639>
- Clifton, J. D. W., & Meindl, P. (2021). *Parents intuit—incorrectly—that teaching their children that the world is a bad place is likely best for them*. [Manuscript submitted for publication]. Department of Psychology, University of Pennsylvania.
- Clifton, J. D. W., & Yaden, D. B. (2021). *Brief measures of the four highest-order primal world beliefs*. [Manuscript submitted for publication]. Department of Psychology, University of Pennsylvania.
- Stahlmann, A. G., Hofmann, J., Ruch, W., Heintz, S., & Clifton, J. D. W. (2020). The higher-order structure of primal world beliefs in German-speaking countries: Adaptation and initial validation of the German Primals Inventory (PI-66-G). *Personality and Individual Differences*, 163, Article 110054. <https://doi.org/10.1016/j.paid.2020.110054>
- Vazquez, C., Valiente, C., García, F. E., Contreras, A., Peinado, V., Trucharte, A., & Bentall, R. P. (2021). Post-traumatic growth and stress-related responses during the COVID-19 pandemic in a national representative sample: The role of positive core beliefs about the world and others. *Journal of Happiness Studies*. <https://doi.org/10.1007/s10902-020-00352-3>