On Translating the Primals Inventory:
Advice from the Primary Co-authors of the Original Items and Other Translators

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Purpose

Thank you for your interest in translating the Primals Inventory! We believe that understanding the primal world beliefs of different individuals and groups is important not only for psychological research but also research in other disciplines, let alone for making the world a better place. We want the Primals Inventory to be translated and are pleased that scale-builders have begun translating the Primals Inventory into the following languages: German, Turkish, Italian, and Spanish.

As these efforts have proceeded, translators have run into similar questions and problems. Suspecting that more translation efforts may be forthcoming, **we have created this document to provide insight into the particular challenges of translating the Primals Inventory**. Each translation must be approached individually, however, given that every language and culture will present unique interpretation issues. For some translators, it may be appropriate to ignore this advice entirely. Additionally, while we focus below on the full version of the Primals Inventory, or PI-99, the insights are relevant to the shorter versions of the scale, the PI-6 and the PI-18. Of course, PI-99 tertiary subscales such as *Abundant* or *Interconnected* as well as primary or secondary subscales such as *Good* and *Enticing* may also be translated piecemeal. Finally, this document is not intended as a general guide to translating a scale into another language. For such guidance, please see Beaton et al (2000); despite the focus on health questionnaires, it is an excellent outline of a well-accepted process for translating self-report scales, including psychological scales like the Primals Inventory.

Overall Translation Considerations

The PI-99 presents complexities that may not be encountered in translating other scales. First, the "world as a whole" is an unusual topic. Second, items were typically not written based on formulaic constructions applied uniformly across primals but carefully and individually crafted to achieve particular meanings. We engaged in what J. Clifton (2019) calls "discovery-minded" scale-building in which validity is prioritized over reliability, which minimizes redundant language and other sources of artefactual covariance among items. Because of these reasons, the items selected for the PI-99 employ a wide range of sentence constructions, colloquialisms, and word choices across and to an extent within primals. As such, **we believe that strict translation is inadvisable and that creating a primals scale requires interpretation and cultural adaptation**. To do this, it is important for translators to deeply understand the definition of each primal world belief and wrestle with measurement challenges each poses. However, how the translator prioritizes validity vs. reliability is up to the translator, depending on whether their primary goal is to map the space anew for a different culture or to attempt to replicate in other

societies the dimensionality that we identified in the American context. Finally, the PI-99 is comprised of numerous subscales, most of which are only four items long including at least one opposite-scored item, and all 99 items are randomly ordered for each respondent. This presents challenges for translation in maintaining the reliability of the subscales. Therefore, the guidance that follows for translating the PI-99 touches both on key language adaptation issues as well as best practices for ensuring the integrity of the subscales.

Avoiding misinterpretations

Self-report survey items face the problem of any communicated "message;" the recipient of the message (in this case, the survey participant) is always prone to misunderstanding the communicator (i.e., the translator) who is familiar with the intended meaning of the message. The Primals Inventory is perhaps more vulnerable to these misunderstandings because it often seeks to capture rather abstract concepts. Psychologists, however, often treat survey language as a series of discrete, interchangeable parts with precise definitions, somewhat akin to a mathematical equation. When words come together, however, they have an almost alchemical effect on each other, rendering different meanings or connotations when a term is used in different contexts (J. Clifton, 2019); see the example of "the world" below, which at various times can refer to nature, the planet Earth, human society, and so forth depending on the context. Finally, layer on this complexity the different interpretations words have across different dialects and subcultures within one language like English, even confined to American English. How the translator, with a certain education, age, sex, ethnicity, and economic perspective, will read a sentence may be different than how a participant with a very different makeup will understand it.

For these reasons, **we recommend translators employ two components in their translation process that were particularly helpful during the original scale creation process to ensure that items were understood as consistently as possible across respondents: consulting a communications expert and piloting the items**. First, we recommend that researchers consult with a mass communications professional who has experience thinking about how a general audience, coming from various subcultural and dialectical backgrounds, will read certain phrases. If your translation is following Beaton and colleague's (2001) process, this consultation could take place during Stage IV, the expert committee review, though it can also be helpful earlier in the process. (For the original version, our communications expert, A. Clifton, was intimately involved in the item creation stage.) Second, we recommend piloting the items before fielding the survey. With a sample of at minimum 12 subjects (n=30-40 is desirable, Beaton et al), have the pilot participants (a) read one item at a time, (b) give their answer (using the response options recommended for the PI-99 below), then (c) explain in their own words what the item meant. The pilot can be conducted in a one-on-one interview format where the participant discusses his or her understanding of the item out loud; this is time consuming but allows the opportunity for the translator to ask clarifying questions. Alternatively, the pilot can be conducted as a survey in written format, either in person or online, with the respondent writing their explanation. The format (interview or survey) and available compensation will determine how many items can be piloted per participant. From our experience, approximately 30 items each is reasonable for a one-hour interview. Both the spontaneous responses of pilot participants and the professional communications consultation will help the researchers to identify any unintended misinterpretations of the item language and tweak items to better fit the

intended meaning of the scale. Our own piloting efforts suggested that approximately 15% of our items were being consistently and entirely misunderstood.

Referring to the world

As we say—somewhat cheekily—in our (Clifton et al, 2019, p. 83) paper, primals are "only beliefs about everything," an unusual subject of belief. For many scales measuring beliefs about a subject, scale-builders can rely on one word to refer to that subject. For example, scales measuring beliefs about the self can rely on the word "I". An obvious difficulty in translating the Primals Inventory is in determining how items should refer to its amorphous subject. We designed scale items with a variety of terms and the final 99 items in the Primals Inventory refer to the world in over 40 different ways. The most popular include *the world*, *everything*, *life*, *the universe*, *most things*, and *most situations*, followed by descriptions such as what is *always around us no matter where we are*; what is *everywhere no matter where we look*; *humans, animals, plants, and pretty much everything else*; and so forth.

We employed this diversity of language for two reasons. First, no single word is perfect. English (and likely other languages) does not have a term for the general character of the world as a whole that (a) is defined from the individual's perspective, (b) forms one heterogenous yet nonetheless meaningfully characterizable place, and (c) constitutes a base-rate for most things and situations one might encounter. Thus, reliance on any one word would have increased systematic error associated with that word. Second, we found that some ways to refer to the world worked well for some primals and quite badly for others. For example, while "the world" was an adequate way to refer to the subject in items measuring *Harmless* (e.g., "On the whole, the world is dangerous"), it was inadequate when trying to measure *Intentional* (e.g., "On the whole, the world is purposeful"). This is because in American English "the world" can sometimes refer to human society; pairing "the world" with the idea of intentionality draws out this alternative meaning leading to item interpretations about conspiracy theories, the "1%" vs. the rest of us, and more. So, to measure *Intentional*, we chose to rely more on the word "universe" (i.e., "On the whole, the universe is purposeful"). Of course, "universe" also has problems. It tends in English to make people think specifically about outer space to the exclusion of matters closer to home. This works ok for *Intentional* (cosmic purposes that are beyond the mundane) but is, in turn, why we did not use the term to measure *Harmless*.

For these reasons, **we encourage translators to (a) refer to the subject of belief (i.e., the world) in multiple ways and (b) exercise their own judgement in adopting potentially very diverse terms to refer to the world so that the intended meaning of an item is translated, not the literal meaning**.

The world is the subject

It is important during translation to keep in mind that primals are beliefs about the world and the world's properties, not beliefs about the self (as per the above discussion). Since these are beliefs that the self holds about the world, however, this distinction can get tricky, especially for some primals (*Improvable, Needs me*). In the original version, the PI-99 items often navigate this complexity by employing certain English language grammatical constructions like expletives

(not curse words but rather the practice of using "It" or "There" as the subject of the sentence, e.g. "**It feels** like the world is going downhill") and passive voice ("The world needs to **be** continually **improved** rather than **accepted**"). In some target languages, these particular grammatical constructions may not be available or interpreted in the same way. In these cases, it is important to remember that the world—or whichever phrase is used in place of "the world," such as "everything," "whatever is happening around me," "most things and situations," "life," etc.—is the subject of the belief. For example, in the sample item above, "It feels like the world is going downhill," if a strict translation is not feasible for the expletive construction ("It feels like…"), the researcher may need to change the item to "The world seems like it is going downhill," "The world feels like it is going downhill," or "I feel like the world is going downhill." The first option ("The world seems…") is likely preferable for several reasons. Saying "The world feels," though we use this construction elsewhere in the PI-99, may be ambiguous in this context. It may be interpreted as attributing feelings to the world; if so, it should be avoided. In addition, though we certainly use the construction "I feel…" in the PI-99, translators should avoid relying too heavily on this construction lest the self becomes the focus of the belief rather than the world. It would not do to replace all "It feels…" items with "I feel…" items for this reason. We will reiterate that these decisions, balancing the relative emphases on the world and the self, require the translator's discretion given the linguistic context. Interpretation and cultural adaptation are preferable to strict translation.

Beware of ceiling effects

Certain subscales, like *Interesting* and other tertiary primals related to *Enticing*, are pitched with more extremely worded forward-scored items, to make those items more difficult to agree with, and with less extreme reverse-scored items, to make them easier to agree with. For example, items we used to measure *Interesting* include the very strongly stated item "It feels like interesting and exciting things surround us all the time" and the qualified reverse-scored item "Most things in life are kind of boring." This is done intentionally because very few would disagree with a generic item like "On the whole, the world is an interesting place" and few would agree with "On the whole, the world is a boring place," creating ceiling effects. Thus, it is important to capture the emotional pitch of the original items through the nuances in your translation, such as the qualification "kind of" and the intensifications "surround" and "all the time."

Including additional items

Those who pursue translation should note that the PI-99 offers especially little room for translation error because it includes so many short subscales; if even one translated item performs poorly, entire subscales can fail (i.e., not be sufficiently internally reliable). Therefore, when translating the 99 items in the Primals Inventory, we recommend that additional items for every tertiary subscale should also be translated and administered, depending on the length of the original subscale, for a total of at least six items per subscale. Later analysis should cull unnecessary items as needed, optimizing reliability as well as language diversity with a preference for the original scale items to allow for more meaningful score comparisons across different translations of the PI-99. Recommended additional items for the initial translation pool have been selected from our much larger original pool of 234 items for your convenience below.

Other items can be selected if desired from the PROMAX table starting on p. 230 of the [online supplemental materials](#) from Clifton and colleagues' (2019) foundational paper.

Including both forward- and reverse-scored items

In order to maintain validity in the translated scale, it is ideal that each subscale contain in its final form at least one forward-scored and one reverse-scored item, as we did in creating the final version of the PI-99. This ensures that the scale is valid, capturing both sides of the conceptual spectrum. For example, in creating the PI-99, one candidate primal (*For me*) broke into two largely orthogonal factors, one comprised of all forward-scored items measuring "for me" and one comprised of all reverse-scored items concerning the belief the world is "against me". We interpreted this to mean that either this primal does not exist in reality or that we did not accurately capture it. Either way, we could not include it in the final inventory because we were not confident of its meaning and thus its validity. We would advise the researcher to apply the same standard. Because translated items often do not perform as expected, it is likely helpful to include at least two forward-scored items and at least two reverse-scored items with at least six items total in your initial pool of items for each subscale. Doing so will help ensure at least one of each forward and reverse-scored items will perform adequately and be retained in the final subscale. Additional candidate items we selected from our original 234-item pool used to create the PI-99 can be found below.

Definitions, Additional Items, and Special Challenges by Primal

Though we could easily fill volumes on various measurement challenges posed by each primal world belief, in the comments below we limit ourselves to only the most pertinent issues for translation purposes. Also, in translation notes below, various comments apply across primals. For example, we do not highlight all colloquial phrases, expecting readers to notice when the same comment applies elsewhere. For those interested in a more detailed discussion of how and why items were written as they were, see the discussion of *Abundant* on page 137-144 of [our (Clifton et al, 2019) supplement](#), especially Table 2.2-1 where we discuss our thinking behind the use of particular words and phrases. Another resource to consult is www.myprimals.com where the meaning of each primal is discussed at more length. Please note that, in the analysis phase, there should be a preference for retaining the original items, with the additional items only used if there is good psychometric reason to do so (e.g., high factor loadings or a need to increase internal reliability). Note * indicates reverse-scored items.

Abundant

Definition:
> **Abundant** (vs. barren) is the belief that the world is a promising place full of opportunities and resources.

Original Items:
> The world is an abundant place.
> The world feels like a barren place with few opportunities.*
> Life overflows with opportunity and abundance.
> The world is an abundant place with tons and tons to offer.

Recommended additional items:

Good opportunities are everywhere; even if we don't see them, that doesn't mean they aren't there.

Great opportunities are few and far between.*

Translation notes:

In American English, words and phrases like "overflow" and "tons of tons" provide a sense of abundance beyond their literal meaning; "few and far between" is a colloquial phrase; "even if we don't see them, that doesn't mean they aren't there" is probing the world's actual character regardless of how one feels about it. While the first and fourth item seem redundant, the addition of "with tons and tons to offer" makes the fourth item more difficult to agree with, thus capturing fairly different variance. We recommend that translators select a colloquial phrase that captures abundance in the respective language (i.e., not strictly translate "tons and tons"). Please also note that in analysis, forward scored items may relate more to *Enticing* while reverse-scored items may relate more to *Safe*; no other tertiary primal splits across secondary primals in this way.

Acceptable

Definition:

Acceptable (vs. unacceptable) is the belief that the world and most things in it are best accepted "as is."

Original Items:

The world needs to be continually improved rather than accepted.*

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

Rather than accepting things as they are, the world needs to be improved as much as possible.*

It's usually better to accept a situation than try to change it.

Two recommended additional items:

More things in the world need to be accepted than changed.

Most things and situations need to be accepted as they are.

Translation notes:

Relatively few are likely to disagree that many things need to be improved; thus, some items concern whether things need to improved "continually" or "as much as possible." The idea is that striving to improve everything all the time contrasts with striving to accept what is. Note that, unlike most other subscales, this one depends on one word (i.e. "accept" is found in every item), so translating "accept" requires careful attention. The translator may consider translating it differently across items to decrease systematic error.

Changing

Definition:

Changing (vs. static) is the belief that, instead of constancy, the world is defined by flux.

Original Items:

Everything feels like it's shifting and changing.

I feel like everything changes all the time.

Everything feels like a whirl of constant change.

The world is a place where most things stay pretty much the same.*

Everything feels like it's constantly moving, changing, and up in the air.

Two recommended additional items:

    Though some things change, most things stay basically the same. *

    Most things are rapidly changing in ways that really matter.

Translation notes:

    This primal involved relatively weaker psychometric signal than others, requiring the use of five items, only one of which is reverse scored, to maintain internal reliability. Therefore, the inclusion of slightly more redundant language might be helpful.

Cooperative

Definition:

    Cooperative (vs. competitive) is the belief that the world runs on trust and teamwork not brutal competition.

Original Items:

    Instead of being cooperative, life is a brutal contest where you got to do whatever it takes to survive.*

    For all life—from the smallest organisms, to plants, animals, and for people too—everything is a cut-throat competition.*

    Instead of being cooperative, the world is a cut-throat and competitive place.*

    The world runs on trust and cooperation way more than suspicion and competition.

Two recommended additional items:

    In general, life succeeds and thrives through cooperation rather than competition.

    No matter where we look, there's trust, cooperation, and sharing. Cut-throat competition only plays a small role.

Translation notes:

    None

Funny

Definition:

    Funny (vs. not funny) is the belief that the world is full of humor everywhere you look.

Original Items:

    The world is hilarious; if we aren't laughing, we aren't paying attention.

    There's humor in everything.

    While some things are humorous, most of the time the world is not that funny.*

    Laughing a ton makes sense because life is hilarious and humor is everywhere.

Two recommended additional items:

    The universe is hilarious.

    Though some things are funny, most things aren't that humorous.*

Translation notes:

    Translations of "funny" should not indicate strangeness or weirdness as "funny" can sometimes suggest in English. Also note that the opposite of *Funny* is not solemnity or seriousness but simply the absence/infrequency of funny things. Finally, forward-scored items need to be more strongly worded than reverse-scored items to prevent ceiling effects as most would agree that many things are funny.

Harmless

Definition:

Harmless (vs. threatening) is the belief that the world and most things in it are typically not very dangerous.

Original Items:

Real danger is everywhere; even if we don't notice it.*

Most things and situations are harmless and totally safe.

I tend to see the world as pretty safe.

On the whole, the world is a dangerous place.*

On the whole, the world is a safe place.♮

Two recommended additional items:

It feels like danger and threatening situations are all around.*

It seems like no matter where I go, I expect things to be safe.

Translation notes:

The translator likely does not need to include the additional items for this subscale. Signal tends to be very strong (high internal consistency, they form their own factor, etc.), and there are already two reverse-scored items. (We only included five items in the PI-99 because the fifth item (denoted by ♮) is the best indicator of the secondary primal *Safe* and helpful on this tertiary subscale.) Additional items are still provided in case translators prefer consistency. Note that "totally" is often used colloquially among English speakers in place of "very" to indicate emphasis (i.e. "totally safe") rather than a categorial statement (e.g. "completely safe").

Hierarchical

Definition:

Hierarchical (vs. nonhierarchical) is the belief that most things have differential value and can be ranked.

Original Items:

Most things in the world could be ranked in order of importance.

Humans, animals, plants, and pretty much everything else can be organized by how important or good they are.

Most things can be organized into hierarchies, rankings, or pecking orders that reflect true differences among things.

Most things aren't better or worse. It's hard to organize the world into hierarchies, rankings, or pecking orders that reflect true differences.*

Things are rarely equal. Most plants and animals, and even people, are better or worse than one another.

Two recommended additional items:

Most things aren't better or worse, but just different.*

Ranking things from better to worse is meaningless. Most things are pretty equal.*

Translation notes:

The meaning of this primal may seem abstract, but we think that is primarily a function of, in English, not having an easy way to refer to it, requiring the long label "Hierarchical". We would be interested if other languages have better labels to get at the same idea. Note that a strict translation of the colloquial phrase "pecking order" might be inappropriate; translators might prefer a culture- or language-specific way of referring to hierarchies, but avoid anything overly specific to human relationships.

<div align="center">*Improvable*</div>

Definition:

Improvable (vs. too hard to improve) is the belief that most things can be readily changed for the better.

Original Items:

It's possible to significantly improve basically anything encountered in life.

In most situations, making things way better is absolutely possible.

Most things and situations are responsive, workable, and totally possible to improve.

Most situations seem really difficult if not impossible to improve.*

No matter who you are, you can significantly improve the world you live in.

Two recommended additional items:

Life is full of stubborn problems, situations, and issues that just can't be solved.*

Though sometimes hard, it feels totally possible to change things and make them much better.

Translation notes:

The opposite of *Improvable* is not unchangeable, which would relate too much conceptually to *Stable* (vs. fragile; i.e., things can be easily changed for the worse). Instead, this primal captures the general difficulty level of making things better. Also, like other *Enticing*-related tertiary primals, the forward-scored items are worded quite strongly to avoid a ceiling. Additionally, avoid connotations that make the respondent think too much about big things, such as governments, poverty, climate, etc. (e.g. "the world is malleable")—of course such big things are hard to change. Instead, we refer to "most things and situations," "life," and "things" to indicate typical malleability, mundane or not. Finally, items should avoid implying whether things are easy or hard to change for the respondent specifically. Items should *not* measure beliefs about *one's own competence* or ability to change things but how difficult things generally are to change *for any given agent* (person or even creature), hence the importance of phrases like "No matter who you are."

<div align="center">*Intentional*</div>

Definition:

Intentional (vs. unintentional) is the belief that most things happen for an underlying purpose.

Original Items:

Events happen according to a broader purpose.

What happens in the world is meant to happen.

Events seem to lack any cosmic or bigger purpose. *

The universe doesn't care if events happen one way or another.*

Everything happens for a reason and on purpose.♮

Two recommended additional items:

The universe does things on purpose.

Events seem to happen without a broader intention or purpose.*

Translation notes:

Like *Harmless*, the *Intentional* subscale likely does not require the additional items. Signal tends to be very strong for this latent variable, and the scale already includes two reverse-scored items (the PI-99 includes five items only because the fifth is the best

indicator of secondary primal *Alive* but also useful on this tertiary subscale). Note that in our view, the subscale is overly dependent on the word "purpose". If the additional items are used, we recommend exchanging the term "purpose" in these items for alternative words. In translation, avoid the suggestion of human purpose alone; this primal depicts an intentionality behind everything from the weather to soulmates. Items should *not* connote a conspiracy theory or some particular group behind society pulling the strings. In addition, items should *not* be written to indicate whether the underlying purpose is good or bad (the term "purpose" unfortunately has positive connotations in English). Finally, while many read *Intentional* in a religious light, many self-identifying atheists also score high on this primal, so avoid overly spiritual connotations and, of course, any term associated with religion or a specific religion.

Interactive (originally called About Me)

Definition:

Interactive (vs. indifferent) is the belief that events happening in the world are reacting to you personally.

Original Items:

Whatever is happening around me often feels related to me or something I've done.
When unsure why something is happening, I often suspect it's got something to do with me.
Much of what happens around me feels like it's because of me or related to me somehow.
My first instinct about events happening around me is that they're unrelated to me or anything I've done.*
My first instinct about things happening around me is that they have to do with me or something I've done.

Two recommended additional items:

It's safe to assume, and I usually do, that whatever's happening is probably not about me or responding to something I've done.*
Usually what's going on around me has nothing to do with me.*

Translation notes:

It is important not to write these items in such a way that suggests narcissism and activates social desirability biases. The concept we are trying to capture is whether the activities of the world are reactions to you personally or to something you personally have done—via weather patterns, who you happen to meet on the street, whether your bus is late, etc. One who sees the world as interactive may think the universe is trying to send them a message, teach them something, punish them, reward them, or push them to do something. For example, if someone plans a picnic, and it rains, one who sees the world as interactive may think the weather is a punishment for something he or she did.

Interconnected

Definition:

Interconnected (vs. separable) is the belief that everything is interdependent and largely inseparable.

Original Items:

Every single thing is connected to everything else.
The world is a place where everything is completely interconnected.

Though things can appear separate and independent, they really aren't. Instead, all is one.

Most things are basically unconnected and independent from each other.*

Two recommended additional items:

Most things are best understood as pretty independent and separate from each other.*

Nothing is truly separate from anything else. Everything is connected.

Translation notes:

None

Interesting

Definition:

Interesting (vs. boring) is the belief that the world and most things in it are fascinating and intellectually engaging.

Original Items:

Most things in life are kind of boring.*

While some things are interesting, most things are pretty dull.*

The world is a somewhat dull place where plenty of things are not that interesting.*

It feels like interesting and exciting things surround us all the time.

Two recommended additional items:

Everything is interesting, no matter where we are or what we're doing.

The world is always a fascinating place.

Translation notes:

In this subscale, it is especially important that forward-scored items be more difficult to agree with than reverse-scored items. For example, note the softening of "kind of" and "somewhat." Some reverse scored items even acknowledge that there are interesting things but just not that many of them.

Just

Definition:

Just (vs. unjust) is the belief that the world is a fair place where you typically get what you deserve.

Original Items:

On the whole, the world is a place where we get what we deserve.

The world is a place where we rarely deserve what we get.*

Life will find ways to reward those who do good and punish those who do bad.

The world is a place where working hard and being nice pays off.

If someone is generous and kind, the world will be kind back.

Two recommended additional items:

The world usually rewards and punishes unfairly.*

Those who find misfortune most often bring it on themselves.

Translation notes:

Items should not primarily conjure up whether *society* treats its members fairly (i.e., faith in particular human institutions like courts of law) but that the *universe* is a place that tends to balance things out, especially moral equations. Presumably, this assumption would hold on alien planets with totally different institutions, law codes, etc. or in the afterlife. The English version may rely too much on the word "world," which as mentioned above often denotes society, though the third item ("Life will find ways…")

still loads well; it does seem, however, to include variance associated with *Alive*, which is only a problem if multiple items include similar error patterns (i.e., systematic error).

Meaningful

Definition:

Meaningful (vs. meaningless) is the belief that the world and basically everything in it matters a great deal.

Original Items:

Nothing really matters all that much.*

Most things are pointless and meaningless.*

The world is a place where things just don't matter.*

The world is a place where most everything matters.

Two recommended additional items:

The world is full of meaning and meaningful moments.

In light of everything wrong with the world, it might be better if nothing existed at all.*

Translation notes:

Meaningful and *Interesting* are probably the two primals most susceptible to ceiling effects on forward-scored items, so forward-scored items must be more difficult to answer than reverse-scored items. More reverse-scored items were retained in the English version primarily because they seemed to suffer less from ceiling effect issues (i.e., responses were more evenly distributed). For example, the first additional item "The world is full of…" is likely not strongly worded enough; translators might consider making it more extreme, such as exchanging "full of" with "overflowing with" or "brimming with".

Needs Me

Definition:

Needs Me (vs. doesn't need me) is the belief that the world needs you for an important task.

Original Items:

The universe needs me for something important.

The world needs me and my efforts.

Life has an important part for me to play.

It feels like the world doesn't really need me for anything.*

Two recommended additional items:

There's nothing important the world needs me for.*

I feel like life has hardly any real or significant tasks for me.*

Translation notes:

It is important that items try to avoid, if possible, a sense from the respondent that agreeing with forward-scored items means confessing to narcissism. Likewise, agreeing with reverse-scored items should not imply that participants are worthless but just that the world does not have a special need for them personally or a very particular role for them to play. Again, the emphasis in this belief should be on the world and its character, something in the nature of the world that makes it *need*, not on the self or something about the self that makes it *needed*, to the extent possible.

Pleasurable

Definition:

Pleasurable (vs. miserable) is the belief that, hedonistically speaking, most things are typically enjoyable.

Original Items:

Life offers more pain than pleasure.*

Life in this world is usually pain and suffering.*

On the whole, the world is a good place.

Most things in the world are good.

Life offers way more pleasure than pain.

Two recommended additional items:

The world is full of pleasures and almost always enjoyable.

More things are bad than good in the world.*

Translation notes:

The belief that the world is good and the belief that the world is pleasurable are statistically indistinguishable in the English version; thus, some items merely use the modifier "good." The translator may want to include enough items of each (*Pleasurable* vs. *Good*) to test if this holds in the target language/culture. If so, more items are available in our (Clifton et al, 2019) supplement.

Progressing

Definition:

Progressing (vs. declining) is the belief that the world is getting better instead of worse.

Original Items:

On the whole, the world is getting worse.*

It feels like the world is going downhill.*

Though the world has problems, on the whole things are definitely improving.

It feels like the world is getting better and better.

Two recommended additional items:

On the whole, the world is improving.

The world keeps changing for the worse.*

Translation notes:

Psychometric signal for this primal tends to be strong. Additional items are less likely to be necessary. It is important to understand the differences between *Progressing* and *Regenerative* when translating these items. *Progressing* concerns the direction of the world as a whole as one big place. *Regenerative* concerns whether the natural tendency of most things and situations is entropy. Presumably, one could see the world as getting better overall (*Progressing*) despite also believing that the natural state of most things is to fall apart (degenerative). We thought these two ideas would collapse into each other in English, but they did not. It may be, however, that the distinction is not statistically meaningful in other cultures, which would be interesting.

Regenerative

Definition:

Regenerative (vs. degenerative) is the belief that the world's natural tendency is to heal/stabilize vs. weaken/decay.

Original Items:

Over time, most situations naturally tend to get worse, not better.*

The usual tendency of most things and situations is to get better, not worse.

Though sometimes situations get worse, usually they get better.

Most things have a habit of getting worse.*

Two recommended additional items:

Over time, most situations tend to improve, rather than decline.

Though sometimes situations get better, usually they get worse.*

Translation notes:

See above under *Progressing* on the difference between *Progressing* and *Regenerative*. Note that the items concern the tendency of things and situations rather than the world as a whole on a global level. This interest in situations should be preserved in the translated items lest they load on *Progressing* rather than *Regenerative*.

Stable

Definition:

Stable (vs. fragile) is the belief that the world and most things in it are resilient instead of frail or easily destroyed.

Original Items:

The world is a place where things are fragile and easily ruined.*

Most things and situations are delicate and easily destroyed.*

Most situations are delicate. Though they may be fine now, things could easily unravel.*

It takes a lot for things to fall apart.

Two recommended additional items:

It doesn't take much for most things and situations to fall apart.*

The world is a place where things are stable and hard to ruin.

Translation notes:

Whereas *Improvable* concerns the degree to which things can readily be changed for the better, *Stable* concerns whether or not things can readily be changed for the worse. *Stable* is also related to, though empirically distinguishable from, *Regenerative* at least in English.

Understandable

Definition:

Understandable (vs. too hard to understand) is the belief that most things are easy enough to comprehend.

Original Items:

Most everything is easy enough to understand.

The world is easy enough to understand.

Lots of things in the world are too confusing and difficult to understand.*

The world is a confusing place where many skills and subjects are too hard to figure out.*

Two recommended additional items:

The world is full of confusing things and topics that are likely too difficult to learn or understand.*

I expect tons of situations and topics to be too difficult to learn or figure out.*

Translation notes:

Items should not concern whether things are mysterious or beyond comprehension in some profound (e.g. mystical or spiritual) way. Rather, like *Improvable*, it concerns something more mundane, namely the extent to which people have a base-rate expectation that understanding a thing is typically difficult. Also, again like *Improvable*, items should be written in such a way to avoid making participants sound like they are stupid or otherwise particularly incompetent at understanding things. Insofar as possible, items should be written such that they do not tap variance associated with any self-beliefs but rather a belief about the character of the external world that all of us presumably share. Using "no matter who you are" might help translators ensure this point though we do not currently include the phrase in these items. Finally, note that we like the phrase "easily enough" because, rather than the idea that the world is easy to understand (we suspected few would agree with that), this phrase implies that understanding is typically within reach for any given person, given the appropriate investment of time and effort.

Worth Exploring

Definition:

Worth Exploring (vs. not worth exploring) is the belief that everything is worth trying or doing, at least once.

Original Items:

Unfamiliar things and places are usually worth trying or checking out.
I feel everything is worth trying, learning about, or exploring further.
Everything deserves to be explored.
To be honest, though some things are worth trying and exploring, most things aren't.*

Two recommended additional items:

Trying new things is sometimes worthwhile but usually disappointing.*
Everything is worth trying at least once.

Translation notes:

Forward-scored items are likely to suffer from ceiling effects. We suggest making them harder to agree with and reverse-scored items relatively easier to agree with, as we have done or even more so. For example, you may want to modify the additional item "Everything is worth trying at least once" to something like "Everything really is worth trying at least once," "Everything is without a doubt worth trying at least once," or "I sense that everything is worth trying at least once," so that responses are less skewed. Notice that last example makes the item slightly akin to a self-reported behavior. This strategy has downsides but can be ideal when used selectively (e.g., we use this tactic in some items measuring *Interactive*).

Administration

The following is a brief overview of PI-99 administration guidance, including language for respondent instructions and additional items that should also be translated. Further administration information, including guidance on scoring and other versions of the Primals Inventory, can be found here.

Other Primals Items

Please note the above list of 96 original items does not include the following three PI-99 items that measure primary and/or secondary primals, which should also be translated:

> On the whole, the world is an uncomfortable and unpleasant place.
> No matter where we are or what the topic might be, the world is fascinating.
> No matter where we are, incredible beauty is always around us.

Item Order

All items (and attention checks) should be administered in a different, random order for each participant. If this is not possible, items should be randomly intermixed and then administered in that same random order across participants. In our administration of the English version, items are split over 3 pages of 34 items each (99 primals items and 3 attention check items). With the addition of approximately 2 items per primal during scale creation, translators may need to increase the number of pages, requiring additional instructions for new pages of items.

Respondent Instructions

At the beginning (note that bolded words appear bolded to respondents):
> 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.

Top of page 2:
> Good work! Remember, when in doubt, go with what initially feels most accurate to the real world. You can be totally honest.

Top of page 3:
> You are doing great. Keep up the good work!

Translators may use these as examples for generating additional instruction headings as needed. Note that later pages likely do not require reiteration of instructions but just encouragement given response fatigue.

Response options and scoring

> (5) strongly agree, (4) agree, (3) slightly agree, (2) slightly disagree, (1) disagree, and (0) strongly disagree.

All six response option labels should be viewable to study participants. **The numbers (5-0), however, refer only to scoring and should not be viewable.** The response options are typically administered on one line horizontally below each item with "Strongly agree" on the left and "Strongly disagree" on the right. All items should be forced response to ensure no missing data.

Attention checks

> 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.

Participants should be excluded from the analysis for failing more than one attention check.

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Citations and Publication

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Clifton, J. D. W. (2019). Managing validity versus reliability trade-offs in scale-building decisions. *Psychological Methods*, Advance online publication.

Final Comment from the Authors

Translating and adapting scales can be difficult and just as much an art as a science. Every decision has upsides and downsides, and all of us can only do the best we can. Please reach out if you think we can be of any help. Good luck!

Comments from Translators

As a resource for future translators, we invite translators (you!) to add your insights, comments, and notes on the issues presented in this guide or other challenges you faced in translating the PI-99. In addition, please send us your completed translation paper, so we can include your citation and the scale here as well as on the Primals website (myprimals.com). Please send your comments to be included in this guide, published papers, and any questions to Alicia Clifton at aliciabwclifton@gmail.com. Thank you!!

German - Comments from translators at the University of Zurich

Italian – Comments from translators at the X

Etc.