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## Lexical Derivation of the PINT Taxonomy of Goals: Prominence, Inclusiveness, Negativity Prevention, and Tradition

Benjamin M. Wilkowski  
*University of Wyoming*

Adam Fetterman  
*University of Texas at El Paso*

Shaun K. Lappi  
*University of Wyoming*

Laverl Z. Williamson  
*University of Wyoming*

Elizabeth Ferguson Leki  
*University of Wyoming*

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## Abstract

What do people want? Few questions are more fundamental to psychological science than this. Yet, existing taxonomies disagree on both the number and content of goals. We thus adopted a lexical approach and investigated the structure of goal-relevant words from the natural English lexicon. Through an intensive rating process, 1,060 goal-relevant English words were first located. In Studies 1-2, two relatively large and diverse samples (total  $n = 1,026$ ) rated their commitment to approaching or avoiding these goals. Principal component analyses yielded 4 replicable components: Prominence, Inclusiveness, Negativity prevention, and Tradition (the PINT Taxonomy). Study 3-7 (total  $n = 1,396$ ) supported the 4-factor structure of an abbreviated scale and found systematic differences in their relationships with past goal-content measures, the Big 5 traits, affect, and need satisfaction. This investigation thus provides a data-driven taxonomy of higher-order goal-content and opens up a wide variety of fascinating lines for future research.

## Keywords

Goals, Values, Motives, Lexical Approach, Scale Development

## Disciplines

Applied Behavior Analysis | Human Factors Psychology | Psychology

## Authors

Benjamin M. Wilkowski, Adam Fetterman, Shaun K. Lappi, Laverl Z. Williamson, Elizabeth Ferguson Leki, Emilio Rivera, and Brian P. Meier

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**Lexical Derivation of the PINT Taxonomy of Goals:  
Prominence, Inclusiveness, Negativity Prevention, and Tradition**

Benjamin M. Wilkowski<sup>1</sup>, Adam Fetterman<sup>2</sup>, Shaun K. Lappi<sup>1</sup>, Laverl Z. Williamson<sup>1</sup>, Elizabeth Ferguson Leki<sup>1,4</sup>, Emilio Rivera<sup>1</sup>, & Brian P. Meier<sup>3</sup>

<sup>1</sup> University of Wyoming, <sup>2</sup> University of Texas-El Paso, <sup>3</sup> Gettysburg College, <sup>4</sup> PSB Research

Note: Data, Analytic Code, Verbatim Method files, and Additional (Open Science) Tables are available at the following link: <https://osf.io/dzabg/>

### **Abstract**

What do people want? Few questions are more fundamental to psychological science than this. Yet, existing taxonomies disagree on both the number and content of goals. We thus adopted a lexical approach and investigated the structure of goal-relevant words from the natural English lexicon. Through an intensive rating process, 1,060 goal-relevant English words were first located. In Studies 1-2, two relatively large and diverse samples (total  $n = 1,026$ ) rated their commitment to approaching or avoiding these goals. Principal component analyses yielded 4 replicable components: Prominence, Inclusiveness, Negativity prevention, and Tradition (the PINT Taxonomy). Study 3-7 (total  $n = 1,396$ ) supported the 4-factor structure of an abbreviated scale and found systematic differences in their relationships with past goal-content measures, the Big 5 traits, affect, and need satisfaction. This investigation thus provides a data-driven taxonomy of higher-order goal-content and opens up a wide variety of fascinating lines for future research.

Keywords = Goals, Values, Motives, Lexical Approach, Scale Development

**Lexical Derivation of the PINT Taxonomy of Goals:  
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What do people want? Few questions are as important to psychological science as this (see Background Section 1). Despite this, existing taxonomies of goal-content disagree on both the number and content of goals. Thus, none have gained widespread acceptance (see Background Sections 2-4). We argue that this resembles the state of personality trait research in the 1970's and 1980's (see Background Section 5). Thus, we propose that the solution adopted by trait researchers at that time – namely, the lexical approach – should be useful in constructing a more consensual taxonomy of goal-content now (see Background Sections 6).

To apply the lexical approach to goal-content, we first derived a rather comprehensive list of goal-relevant words from the English lexicon (Research Phase 1). We then asked two relatively large and diverse samples of adult American participants to rate their commitment to these goals, with the aim of mapping the major dimensions of goal-content in this culture (Research Phase 2, Studies 1-2). Finally, we developed a measure of the emerging constructs and began to explore the nomological net surrounding them (Phase 3, Studies 3-7).

## **Background**

### **1. The Need for a Systematic Goal Taxonomy**

Goals are a critically important construct in psychology. Goal-pursuit can clearly affect any outcome that is the object of one's goals. Common examples include social status (e.g., Locke, 2015), academic performance (e.g., Elliot & McGregor, 2001), physical health (e.g., Otis, & Pelletier, 2008), and social relationships (e.g., Elliot, Gable, & Mapes, 2006) (among many others). Beyond this, goals are clearly relevant to many other important psychological constructs.

Emotions are thought to be elicited by goal-congruent and incongruent events (e.g., Smith, Haynes, Lazarus, & Pope, 1993). Personality traits are thought to reflect, at least in part, stable individual differences in motivation and motivational processing (e.g., Corr, DeYoung, & McNaughton, 2013; DeYoung, 2015). Situations are also thought to have such a profound influence because of their role in activating, facilitating, and thwarting goal-pursuit (e.g., Rauthmann, 2015).

Given the importance of goals, it would be immensely useful to have a systematic taxonomy which organizes goal-content. The empirical derivation of systematic taxonomies has been vitally important to numerous other disciplines, as they organize massive amounts of data in ways that allow for subsequent theorizing. For example, biological taxonomies of the species organized the relevant data in a way that evolutionary theory could later explain (Dennett, 1995; Mayr, 1982). Within psychology, the ‘Big Five’ model of personality traits organized the data, and attempts to theoretically understand these traits are currently underway (e.g., DeYoung, 2015; Fleeson & Jayawickreme, 2015). We propose that a systematic taxonomy would also usefully inform goal-content research.

## **2. What is a Goal?**

Having established that a systematic taxonomy of goal-content would be useful, it is next important to develop a formal definition of goals. Drawing on precedents (e.g., Austin & Vancouver, 1996; Cantor et al., 1986; Emmons, 1986; Gollwitzer, & Moskowitz, 1996; Klinger, 1977; Little, 2015), we define a goal as ‘*a current state of commitment to expend effort to affect one's relationship with an end-state*’.

Several aspects of this definition require clarification. First, at their core, goals are defined in terms of an “*end state*”; not in terms of the “*means*” one uses to attain that end

(Gollwitzer & Moskowitz, 1996). Different means can be substituted to reach the same ends. End-states can of course take a wide variety of forms – including a social position or relationship (e.g., power, marriage), an emotional state (e.g., happiness), a cognitive state (e.g., staying informed), an activity (e.g., which one intrinsically enjoys), among other possibilities.

The phrase “*affect one’s relationship to*” is used to broadly include goals to approach (or promote) a desirable state, to avoid (or prevent) an undesirable state, and to maintain a current, satisfactory state (Austin & Vancouver, 1996; Elliot, 2006; Higgins, 1997). To affect one’s relationship with the relevant end-state, a person must enter into a “*state of commitment to expend effort*”. That is, a person must invest their limited resources (e.g., their time, muscles, attention, etc.) in goal-relevant activities. Moreover, they must commit to continue doing so until they reach the desired state (Klinger, 1977).

### **3. The Scope of Past Goal Taxonomies**

According to this definition, goals are an over-arching construct that encompass a wide variety of more specific constructs studied in psychology (see Austin & Vancouver, 1996). This includes desires (Hofmann & van Dillen, 2012), plans (Miller, Galanter, & Pribram, 1960), intentions (Ajzen, 1991), personal projects (Little, 2015), personal strivings (Emmons, 1986), life tasks (Cantor, Markus, Niedenthal, & Nurius, 1986), motives (Kenrick, Griskevicius, Neuberg, & Schaller, 2010; Schultheiss, 2008), needs (Pittman & Zeigler, 2007), and values (Schwartz, 2012), among others. Clearly then, no taxonomy will represent every single goal that any human has ever had. Many goals are very brief (e.g., to retrieve the morning paper), and others are specific to few people’s life circumstances (e.g., to get an A in Dr. Freng’s General Psychology course). Such lower-order goals must be studied on a purely idiographic basis (Cantor et al., 1986; Emmons, 1986; Little, 2015).

Past attempts to develop a goal taxonomy have thus focused on higher-order (i.e., superordinate & long-term) goals. According to both theory and research (see Austin & Vancouver, 1996; Powers, 2005; Vallacher & Wegner, 2011), relatively brief and subordinate goals are executed in service of longer-lasting, superordinate goals. Thus, it is useful to focus on higher-order goals for a number of reasons. First, they can be studied nomothetically, without the need to ask participants to specify their goals idiographically. Second, a taxonomy of higher-order goal-content has the potential to provide an organizational framework for lower-order goals as well. For example, imagine one student who has a goal to study for a biochemistry test (i.e., low-level goal, plan, or intention), to become a doctor (i.e., mid-level goal, life task, personal project, or personal striving) and ultimately achieve a high-status position (i.e., high-level goal, value, or motive). Now imagine another student who has a goal to study for a political science test (low-level goal), to become a lawyer (mid-level goal) and ultimately achieve a high-status position (high-level goal). If we focused only on these two students' low or mid-level goals, they may be negatively correlated (e.g., students who aim to be doctors do not aim to be lawyers & vice versa). If we focus on higher-order goal-content, however, we can see that these two mid-level goals may actually have something in common – they serve the same higher-order goal (i.e., high-status position).

Beyond their focus on higher-order goals, past goal taxonomies have restricted their scope in various other fashions. Some taxonomies have focused only on needs (e.g., Deci & Ryan, 2000; Maslow, 1943), typically defined as end-states that bring psychological health and well-being when they are fulfilled and damage psychological health and well-being when they are thwarted (Baumeister & Leary, 1995; Pittman & Zeigler, 2007). A related approach is to focus only on fundamental motives, theorized to be a direct product of evolution by natural

selection (Kenrick et al., 2010). Other taxonomies have focused on social goals alone (e.g., Locke, 2015); while others have focused only on values and belief systems (e.g., Schwartz, 2012). In the next section, we review several past taxonomies, noting that there are many sources of convergence even across these distinctions (i.e., needs, values, motives, etc.). Nonetheless, there are also critical points of divergence in terms of the number and content of goals specified. This highlights the need for a more systematic taxonomy.

#### **4. A (Necessarily Incomplete) Review of Past Goal Taxonomies**

It is well beyond the scope of this manuscript to comprehensively review all past goal taxonomies. Nonetheless, a brief but representative overview is necessary to illustrate the current state of thinking in this area. We include in our overview early theories of needs (Maslow, 1943; Murray, 1938), the interpersonal circumplex (e.g., Locke, 2015), research on implicit (and the corresponding explicit) motives (McClelland, 1987; Schultheiss, 2008), evolutionary theories of motives (Kenrick et al., 2010; cf. Bernard, Mills, Swenson, & Walsh, 2005), goal-contents theory (a sub-theory of self-determination theory; Ryan & Deci, 2017), models of approach and avoidance motivation (e.g., Elliot, 2006), and Schwartz's (2012) value theory. Several additional studies are included that attempted to empirically derive a goal taxonomy from the bottom-up (Chulef, Read, & Walsh, 2001; Novacek & Lazarus, 1990; Richard, 1966; Wicker, Lambert, Richardson, & Kahler, 1986).

Although past taxonomies have differed in their focus (e.g., on needs, motives, values, etc.), a number of re-occurring themes emerge. In Table 1, we attempt to succinctly highlight these re-occurring themes. However, our hope is that Table 1 will simultaneously highlight the difficulties in definitively mapping past taxonomies on to one another – attesting to the need for a more systematic taxonomy.

Many past taxonomies have differentiated between goals to directly maximize pleasure (or happiness) versus goals to directly minimize pain (or danger). Regarding social goals, a reoccurring distinction is between goals ‘to get along’ (i.e., communion) versus goals ‘to get ahead’ (i.e., agency). A final distinction is between goals emphasizing the preservation of conventional social arrangements versus goals emphasizing innovation and improvement.

[Table 1]

An inspection of Table 1 makes a number of points apparent. First, taxonomies differ somewhat dramatically in the number of goals they propose. Toward the top of Table 1, one can see models specifying relatively few constructs. The interpersonal circumplex suggests that social goals can be understood in terms of as few as two dimensions (i.e., agency & communion). Toward the bottom of this table, one can see taxonomies specifying a far greater number. Murray (1938) includes 20 manifest needs (or more, according to some readings of his analysis); and Chulef et al. (2001) list as many of 29 different empirically-identified clusters.

Second, a large number of constructs have been proposed. Thus, every construct cannot be completely distinct. Research establishes that some goal constructs are, in fact, more closely related to one another (e.g., Schwartz, 2012). Thus, an organizing framework would be useful.

Third, multiple variants have been proposed for each theme. Regarding communion, researchers have distinguished between goals for affiliation (i.e., friendship & social contact), intimacy (i.e., romantic relationships), altruism (i.e., to help others), and to avoid loneliness and conflict. Regarding agency, researchers have distinguished between goals for power (i.e., control over others; social standing), achievement (i.e., mastery of valued skills), and failure-avoidance. There are also a variety of different forms of pain-minimization (e.g., avoiding physical attack, disease, stress, or a strenuous life), pleasure-maximization (e.g., hedonism, personal happiness,

mate-acquisition, play), innovation (e.g., personal growth, self-direction, or creativity), and convention (conformity, tradition, religiosity, coalition formation).

So-called “jingle-jangle” problems are also apparent (John, Naumann, & Soto, 2008). “Jingle” problems occur when researchers use the same term to refer to arguably different constructs. For example, achievement goals sometimes refer to the mastery of autonomously-chosen activities (McClelland, 1987), and other times to mastery of socially-valued activities (Schwartz, 2012). “Jangle” problems occur when researchers use different terms to refer to a seemingly identical construct (e.g., hedonism & sensation-seeking).

As a result, there are blurry lines between constructs. Many legitimate questions could be raised about the placement of some constructs in Table 1. For example, mastery could be considered an aspect of innovation (rather than achievement). Conversely, creativity could be considered an aspect of achievement (rather than innovation). Thus, while there are some common themes in past taxonomies of goal-content, there are also many points of divergence.

## **5. A Historical Comparison to Personality Trait Research**

We suggest that goal-content research is in a similar state to personality trait research in roughly the 1970’s and 1980’s (see Goldberg, 1993; John Angleitner, & Ostendorf, 1988; John et al., 2008; John & Srivastava, 1999 for relevant historical reviews). Researchers of that time focused on a dizzying array of traits. Attempts to organize these into a more cogent framework varied wildly in number. It was not clear how different constructs aligned, as “jingle-jangle” problems were prevalent, and researchers emphasized different aspects of (what would eventually be seen as) the same trait (e.g., Bales, 1970, recognized the dominance component of extraversion; Buss & Plomin, 1975, recognized the sociability component).

The solution was eventually found by taking a bottom-up, empirical approach (Goldberg, 1993; John et al., 2008). Such an approach is less influenced by a researchers' theoretical preferences or biases, and thus can more easily gain widespread influence. Although some have criticized atheoretical approaches (e.g., Block, 2010), the development of a consensual taxonomy in fact sets the stage for later theorizing (Cooper, 2016; John et al., 2008).

Trait researchers of this period more specifically adopted the *lexical hypothesis* to develop a taxonomy from the bottom-up. The lexical hypothesis posited that the most socially-important and salient individual differences will come to be represented in many of the world's natural languages as single words (e.g., Allport, 1937; Cattell, 1942; Goldberg, 1982). In order to apply this solution, John et al. (1988) suggested that researchers must overcome five challenges: 1) Define the construct of *personality traits* systematically. 2) Select words from the natural language that potentially fit this definition. 3) Ask a large group of participants to rate themselves (or others) on all relevant words. 4) Perform a factor analysis to determine the most prominent dimensions of personality, and 5) Examine which factors replicate across samples, variation in item pools, languages, and cultures.

The result of decades of such efforts is the well-known 'Big Five' trait taxonomy (Goldberg, 1993; John et al., 2008), which suggests that Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Neuroticism are the most prominent dimensions of personality. To say this taxonomy has been influential would be an understatement. These traits predict a wide variety of important life outcomes (Roberts, Kuncel, Shiner, Caspi, & Goldberg, 2007), organize a multitude of lower-order traits (e.g., Costa, Busch, Zonderman, & McCrae, 1986; Costa & McCrae, 1988), and form the basis of most current personality-related theorizing (e.g., DeYoung, 2015; Fleeson, & Jayawickreme, 2015).

## 6. Applying the Lexical Solution to Goal-Content

We propose that the lexical hypothesis will also be useful in developing a systematic taxonomy of goal-content. This proposal is based not just on the lexical approach's success in trait research, but also on its applicability to higher-order goal-content. Given the importance of goals (see Background section 1, above), it is logical to assume that across cultures, people will spend a great deal of time discussing their goals. As languages develop, single words should routinely emerge in many of the world's languages to describe the most socially-important and salient higher-order goals. Consistent with this, Schwartz (1992; Schwartz & Bilsky, 1990) and his collaborators have been able to locate value-descriptive words in a wide variety of languages.

Given the relevance of the lexical hypothesis to goal-content, we next sought to tackle the five challenges that John et al. (1988) outlined for any taxonomer. The first challenge is to determine the scope of the intended taxonomy by developing a formal definition. Following past taxonomies (see background sections 3-4), we focused on *higher-order goal-content*. Building on the more general definition of goals (see background section 2), we define a higher-order goal as *'a current and conscious state of commitment to expend effort over an extended period of time to affect one's relationship with a relatively superordinate end-state'*. This definition adds three characteristics to the more general definition of a goal (i.e., conscious, long-term, superordinate). In selecting words that match the intended level of abstraction, we operationally defined 'superordinate' in terms of goals that extend across the life circumstances of many individuals and which are pursued by at least a significant minority of the population.

This definition thus explicitly excludes lower-order goal constructs – such as desires (Hofmann & van Dillen, 2012), intentions (Ajzen, 1999), and plans (Miller et al., 1960). Mid-level goal constructs – such as life tasks (e.g., Cantor et al., 1986), personal strivings (e.g.,

Emmons, 1986), and personal projects (e.g., Little, 2015) – are not the explicit focus of this taxonomy, as they are typically assessed idiographically. Nonetheless the line between ‘high-level’ and ‘mid-level’ goals is blurry and thus there will likely be overlap.

Beyond these exclusions, however, we sought to be as comprehensive as possible, including constructs such as values (e.g., Schwartz, 2012), explicit motives (e.g., Kenrick et al., 2010; Schultheiss, 2008), aspirations (Grouzet et al., 2005), possible selves (e.g., Markus & Nurius, 1986), and self-guides (e.g., Higgins, 1987). This broad focus was based on the observation that past taxonomies of different constructs (e.g., motives, values, aspirations, etc.) share a great deal of conceptual overlap. Given this, it was more useful to develop a taxonomy that broadly applies to all such higher-order goal constructs.

We also sought to include goal-content that is relevant to a wide variety of different recognized types of goals. This includes approach goals (i.e. to approach positive states), avoidance goals (i.e., to avoid aversive states; Elliot, 2006), promotion-focused goals (i.e., to promote a gain or a personally-held ideal), prevention-focused goals (i.e., to prevent a loss or fail to live up to social obligations; see Higgins, 1997), intrinsic goals (i.e., which involve intrinsically enjoyable behaviors and satisfy theorized psychological needs) and extrinsic goals (i.e., which do not satisfy theorized psychological needs; or which are only a means to a desirable end; see Ryan & Deci, 2017). Because extrinsic goals are included in the scope of the intended taxonomy, it is important to emphasize that it should not be regarded as a taxonomy of ‘needs’. Future work will be needed to determine if the higher-order goals emerging from this analysis qualify as ‘needs’ (e.g., if their thwarting undermines psychological health & well-being; see Baumeister & Leary, 1995; Pittman & Zeigler, 2007).

### **Research Phase 1:**

### **Selection of Goal-Relevant Words from the English Lexicon**

With this definition in hand, we next sought to compile a list of goal-relevant words from the natural lexicon (John et al.'s, 1988, Stage 2). As was done in the earliest efforts to develop a trait taxonomy (e.g., Cattell, 1943; Tupes & Christal, 1961/1992), we focused on our native language and culture – namely English words as used in the United States. This makes the research more feasible to conduct. Nonetheless, it should be noted from the beginning that this also limits the generalizability of our results. Although we ultimately hope to contribute to a taxonomy of *human* goals, this investigation itself is focused only on *Americans'* goals.

We began by selecting a syntactic category (e.g., nouns, adjectives) to focus on. This was necessary because certain syntactic categories are more natural for describing certain constructs (e.g., adjectives for describing traits; John et al., 2008) and because we did not want our analyses to be influenced by syntactic differences (e.g., a noun vs. adjective factor; see Schwartz, 1992).

We ultimately choose to focus on nouns. Several considerations motivated this decision. First, previous goal-content research has largely focused on nouns – both in the labels applied to theoretical constructs (e.g., safety, love; see Table 1) and in the items administered to participants (Schwartz, 1992). Second, nouns most naturally describe goal-objects. Third, focusing our analysis on nouns ensures independence from trait and emotion taxonomies, both of which were based on adjectives (John et al., 2008; Watson & Tellegen, 1985). Finally, nouns represent the largest and most inclusive syntactic category in the English language.

We next sought to locate a rather comprehensive list of English nouns. We selected WordNet (“What is WordNet?”, 2016), a highly-respected psycholinguistic database. We downloaded WordNet version 3.0, a recent and widely-used version of WordNet (Petalba,

2014). WordNet has a number of advantages given our purposes. First, it is organized by syntactic category, so it directly provides a list of nouns.

Second, it is rather comprehensive – containing 145,626 entries in its noun list (representing 117,089 unique word-forms & 81,773 unique word-meanings). To establish WordNet’s comprehensiveness, it is useful to compare it to the Oxford English Dictionary, often considered the most authoritative source on the English Language. A search of this dictionary for nouns in current use (as of June, 2019) yielded 140,782 entries (including multiple meanings of the same word-form). As such, WordNet actually contained more entries. More common dictionaries contain fewer total entries than either WordNet or the Oxford English Dictionary (though precise numbers for nouns are difficult to come by).

Third, WordNet is organized by semantic meaning (Miller, 1990; Miller, Beckwith, Fellbaum, Gross, & Miller, 1990). Each entry in WordNet is grouped first into synonym sets, which contain a number of word-forms that can be used to convey the same word-meaning (e.g., the word-forms ‘account’, ‘chronicle’, ‘history’, & ‘story’ can all be used to convey the same meaning -- ‘a record or narrative description of past events’). For nouns, these synonym sets are arranged hierarchically, to indicate that some word-meanings represent specific instances of a more general category (e.g., ‘etymology’ is a type of ‘account’; ‘account’ is a type of ‘record’, etc.). This arranges nouns into 25 distinct domains of semantic meaning (e.g., acts, animals, attributes, people, shapes). This organization allowed us to discard clearly-irrelevant domains (e.g., shapes, animals) and levels of abstraction (e.g., highly abstract words such as ‘entity’; or highly specific words such as ‘sublieutenant’) without manually evaluating all 145,626 entries.

*Preliminary Exclusions:* Three preliminary steps were taken to narrow this large list (see Supplemental Section 1 for more details). First, low-frequency words (i.e., which did not appear

in a separate database meant to capture words commonly used in spoken language) were eliminated (see Open Science Table 1A, or OS1A, available at <https://osf.io/dzabg/>). Second, clearly irrelevant domains (e.g., shapes, animals; which did not include ‘seed words’ derived from Chulef et al.’s, 2001, rather comprehensive list of goal-relevant phrases) were eliminated (see Table OS1B-OS1C). Finally, words which were too abstract (e.g., ‘entity’) or too specific (e.g., words representing specific historical figures or events) to refer to a meaningful goal were discarded. This left 13,513 entries, representing 8,549 unique word-forms and 8,902 unique word-meanings (see Table OS1D).

*Manual Ratings:* The remaining 8,549 word-forms were next submitted to manual evaluation. Only unique word-forms were presented to raters, as these represented potential items for participants. We recruited a total of 8 raters at various stages of education (i.e., 2 had earned their Ph.D., 3 were pursuing a Ph.D., and 3 were pursuing a bachelor’s degree) and who lived in different regions of the United States (Mountain-West, Northeast).

The definition of a higher-order goal provided above was given to each rater and explained. The procedures used to derive the list were also briefly explained. For each word, the raters’ primary task was to provide a yes/no answer to one question capturing the critical aspects of this definition: “Do you believe that 33% of Americans or more are currently engaged in a long-term effort to approach, maintain, or avoid this?” Raters were told that the 33% figure was provided only to make the task concrete, and that the true aim was to find goals that at least a ‘significant minority’ of adult Americans were pursuing. Accordingly, they were instructed to err on the side of caution and rate items as goal-relevant if they were unsure.

Raters were given four different ‘rule-out’ criteria and were instructed to endorse at least one for each word rated as irrelevant: 1) Words the average participant would not understand; 2)

Words that do not form a clear goal; 3) Words that represented a brief task that could be completed in one day or less; 4) Words that represent a goal that is just very uncommon. Raters were instructed to work for a maximum of one hour at a time, and to provide themselves with sufficient rest before returning to the task. This process took approximately 6 months.

Inter-rater agreement was relatively high, with an average agreement between any 2 raters of 74%. This was due in large part to 4,707 words that were consensually evaluated as goal-irrelevant. To more formally evaluate inter-rater agreement, we calculated Fleiss's (1971)  $\kappa$ , using the irr package of R (Gamer, Fellows, Lemon, & Singh, 2012).  $\kappa$  values of 0 indicate a chance levels of agreement, and 1 indicates perfect agreement. We obtained a  $\kappa = .26$ , which was significantly greater than chance levels of agreement,  $Z = 125, p < .0001$ . Consistent with past lexical analyses, however, this level of agreement was clearly quite far from perfect agreement. We thus conservatively eliminated only those words that were rejected by 75% of the raters or more (a criterion adopted prior to beginning the rating process). 7,315 were thus eliminated, leaving 1,234 words (see Table OS1E).

After completing this intensive rating process, we noticed that some words were highly redundant, in that they represented different forms of the same word that communicated an identical meaning (i.e., alternative spellings; alternative prefixes or suffixes added to the same root-word). 151 redundant words were eliminated, leaving 1,083 words (see Table OS1F).

As we devised the final response scale for participants, we became concerned that some words did not clearly refer to a coherent goal that participants could rate. We thus asked five of the original raters to re-rate the remaining 1,083 words on the following question: "Does this word, by itself, communicate one clear goal that participants can rate -- using the scale above?" This was paired with the same response scale used in all studies, which ranged from +4 ("I have

an extremely strong commitment to this”) to 0 (“I have no commitment to this”) to -4 (“I have an extremely strong commitment to avoiding this). Inter-rater agreement was again somewhat high (average interrater agreement = 79.8%; Fleiss’s  $\kappa = .16$ ), and significantly exceeded chance levels of agreement,  $Z = 16.5$ ,  $p < .0001$ . Nonetheless, it was quite far from perfect agreement. This time, agreement was driven by 611 words (54%) that were consensually rated as a clear goal. Thus, the original concern that motivated these rating was largely unfounded. Only 23 of the words (2.1%) were rejected by greater than 75% of raters (see Open Science Table 1G). We discarded them. This left 1,060 words, which we administered to Study 1 participants (see Appendix 1 for the complete list).

## **Research Phase 2:**

### **Mapping the Structure of Goal-Relevant Nouns from the English Lexicon**

We entered into Study 1 with the expectation that goals would exhibit a hierarchical structure, such that they could be usefully described at multiple levels of abstraction (see DeYoung, 2006; DeYoung, Quilty, & Peterson, 2007; Vallacher & Wegner, 2011). Thus, we did not seek to uncover a single “correct” solution, as multiple possible solutions could be equally correct. Instead, we sought to uncover a relatively parsimonious number of constructs which could organize goal-content research by describing the most general and predominant higher-order goals represented in the English lexicon. To do so, we adopted Goldberg’s (2006) ‘Bass-Ackwards’ technique. This technique is straightforward, but simultaneously quite powerful. In it, a researcher begins by extracting and interpreting the one-component solution. They then proceed to extract and interpret solutions containing an increasingly greater number of components. Correlations between components from different solutions are used to track the continuation of components across solutions and the emergence of new components. This

process can continue until the newly-emerging components are uninterpretable (e.g., due to few or no items loading uniquely on them). We aimed to find a relatively parsimonious solution that can organize goal-content research and which clearly replicated across samples.

## **Study 1**

### **Open Science Practices**

In all studies, we report all measures, data exclusions, and how sample sizes were determined. The verbatim method files, data files, and code for each study are publically available, with Open Science tables (<https://osf.io/dzabg/>). In a few rare cases, we report measures and the accompanying results only in the supplement when the relevant results were not especially informative. This was done only to keep this manuscript to a more manageable length.

### **Ethics Statement**

All studies in the current investigation received IRB approval through the following protocols: “Goal Questionnaire” (protocol #1116012-2) from University of Texas, El Paso; “Toward an Empirical Taxonomy of Long-Term Goal Content: A Lexical Approach” (protocol #17-Psych-24) from Gettysburg College; and “Goal-pursuit in Daily Life” (protocol #20170821LW01647) from the University of Wyoming.

### **Power Analysis**

Determining the appropriate sample size for a principal component analysis (or exploratory factor analysis) is complex, as the statistical power to reproduce the population’s component solution is influenced by a number of considerations (Fabrigar, Wegener, MacCallum, & Strahan, 1999; Goldberg & Velicer, 2006; Mundfrom, Shaw, & Ke, 2005). Solutions containing more components, fewer items per component, and a smaller amount of

variance in the observed data explained by the components (i.e., communality) require more participants to reproduce. Thus, simple ‘rules of thumb’ that have often been offered (e.g., 5 or 10 subjects per item) are misguided. To help researchers sift through these complexities, Mundfrom et al. (2005) conducted a series of Monte Carlo simulations to determine the sample size needed to adequately reproduce a population’s solution under various conditions (i.e., number of components, items per component, & communality). Given the nature of our investigation, we assumed that a large amount of variance in our extensive item pool would remain unexplained (i.e., low communality), but that components would be defined by a relatively large number of items (i.e., 5 or greater). Under these conditions, Mundfrom et al. (2005) reported that 430 participants may be needed (i.e., to reproduce a 5-component solution with 5 items per component & low communality). Given the uncertainty regarding these assumptions, we conservatively exceeded this recommendation and aimed to recruit 500 participants. In all studies, we also exceeded our data collection goals by 10% to maintain sufficient power after the deletion of participants providing invalid data.

### **Participants**

The final sample retained for analyses consisted of 504 participants. Demographic information for all studies is summarized in Table 2. As part of an effort to increase our sample’s diversity, participants were recruited from all three institutions with which the authors were affiliated. 168 undergraduate psychology students were thus recruited from the University of Wyoming, a state university in a largely rural and predominantly white Rocky-Mountain-region state. 216 undergraduate psychology students were simultaneously recruited from the University of Texas, El Paso, a state university in a more urban, predominantly Latinx region of the American South. Students from each of these two sites received course credit for participating.

Finally, 201 individuals were simultaneously recruited who were affiliated with Gettysburg College, a private, liberal arts college in a chiefly white region of the American Northeast. Participants from this site received a \$15 gift card for participating. They included 152 undergraduate students, 44 staff/administrators, 3 faculty/professors, 1 alumnus, and 1 faculty spouse.

[Table 2]

We used the same procedures for data exclusions in all current studies (sometimes supplemented by procedures necessary for online or two-part studies). In Study 1, we report these procedures in full for illustration. This information is reported in Supplemental Section 2 for Studies 2-7, in the interests of keeping this manuscript to a more manageable length. Of the 585 initial survey completions for Study 1, 17 completions were deleted because the same individual had previously completed a survey (i.e., same name & demographics from the same institution). 32 participants were deleted because their responses contained 5% or more missing data. 10 were deleted because of abnormally high levels of response-repetitions (i.e., they were statistical outliers in terms of the number of consecutive items with identical responses).

Although we screened for abnormally low levels of response-repetitions (indicative of random responding), zero participants were statistical outliers in this regard. Following initial analyses, it also became apparent that 13 participants had extremely high or low average responses to the items overall (i.e., they were statistical outliers in this regard). Although they did not alter the components obtained, they added substantial ‘noise’ to the data and were discarded.

## **Procedures**

All participants received a link to complete an online survey, created using SurveyGizmo software. After providing informed consent, they received instructions asking them to indicate

whether each of the 1,060 words (see Appendix 1) represented a goal of theirs, using a +4 (“I have an extremely strong commitment to this”) to 0 (“I have no commitment to this”) to -4 (“I have an extremely strong commitment to avoiding this) scale. The instructions (retained in the final PINT Goal-Contents Scale and presented verbatim in Appendix 2) also explained that a goal entails the commitment of effort to reach or maintain something desirable; or to avoid something undesirable. Furthermore, they instructed participants to only indicate something is a goal of theirs if they are *currently* committed to it (and not if they were only committed to it in the past), and if they are spending *effort* on it (and not if they merely like it or dislike it). Participants then rated all 1,060 words in a random order.

Participants were given the option to save their responses at any point, take a break, and return to complete the survey later. They were asked to complete the survey within the same day they started. After responding to all items, participants were asked to provide basic demographic information and were debriefed. Participants at one site then completed a few items for an unrelated project. The study took participants approximately one hour to complete on average.

## **Results and Discussion**

### **Analytic Strategy**

To explore the hierarchical structure of goal-content, we used Goldberg’s (2006) ‘Bass-Ackwards’ technique. Solutions containing 1-10 components were examined, and correlations were used to track the continuation of components across solutions, as well as the appearance of new components. Following Goldberg’s recommendation, we used principal components analysis (PCA), as it has a number of advantages over exploratory factor analysis (EFA) in the current context: First, component scores are directly calculated as part of PCA; while factor scores are not and can only be estimated within EFA. Thus, computing correlations between

components from different solutions is straightforward in PCA and arguably more precise. Second, PCA is computationally simpler than EFA (Velicer & Jackson, 1990). Given that we examined over 1,000 variables and extracted up to 10 components, this was important and allowed us to routinely converge upon a reliable solution even under these computationally demanding circumstances. Finally, the results of PCA and EFA tend to converge, especially when the number of items per component is high (see Snook & Gorsuch, 1989; Velicer & Jackson, 1990; Widaman, 1993). Given our large item pool and our aim to focus on a relatively parsimonious solution, this criterion would almost certainly be met for the solutions of interest. These analyses were conducted using the psych package for R (Revelle, 2018). As preliminary analyses indicated that many of the components were correlated, a promax rotation was employed. Participants' scores on the obtained components were saved and correlated with component scores from neighboring solutions. These correlations are presented in Figure 1.

The 10-component solution contained multiple problematic components (see Figure 1), so no further solutions were examined. We used several psychometric and conceptual criteria to begin selecting possible solutions for further development. Following Goldberg (2006), solutions containing an uninterpretable component (e.g., in which the highest-loading items all cross-loaded on another component) were first deemed unacceptable. (We specified items as cross-loading when the absolute value of their secondary loading was within .10 of the absolute value of their primary loading.) Given our goal of locating a relatively parsimonious number of general components, any solution containing a very narrow component (e.g., defined by very few items and/or highly-redundant items) was also deemed unacceptable. Finally, we sought to focus on a replicable solution. Thus, we made only preliminary conclusions following Study 1, withholding more definitive conclusions until after Study 2.

While we primarily relied on these procedures, we also examined several indices traditionally thought to indicate the proper number of components to retain (e.g., parallel analysis, scree plot; Fabrigar et al., 1999; Goldberg & Velicer, 2006). Unfortunately, the recommendations from these indices varied quite widely – suggesting that between roughly 5 and 29 components should be retained (or even 213 if the generally-discredited Kaiser (1960) rule is consulted). As such, these indices provided inadequate guidance to determine the number of components to retain. Supplemental Section 3 provides more information.

### **‘Bass-Ackwards’ Results**

Figure 1 provides a dendrogram of the components emerging from the ‘Bass-Ackwards’ analysis (Goldberg, 2006). Labels represent our interpretation of each component, and many should be regarded as speculative. Values represent correlations between the components of neighboring solutions. To effectively illustrate the emergence of each new component, only its strongest correlations with components in the previous solution are depicted.

[Figure 1]

The early-appearing components were extremely general in nature. A General Motivation component appeared first, reflecting broad individual differences in the strength of commitment to commonly-held goals. In the two-component solution, this split into two components representing a commitment to prevent negative and promote positive outcomes, respectively. This is consistent with claims that approach/promotion and avoidance/prevention are broad themes that organize goal content (Elliot, 2006; Higgins, 1997). Interestingly, the Negativity Prevention component was preserved even in the 10-component solution, demonstrating surprising coherence.

In the solutions containing 3-5 components, components appeared which more closely resembled constructs from past goal taxonomies (especially Schwartz's, 2012, value theory). Beyond Negativity Prevention, the four-component solution also contained components which we ultimately labeled Prominence, Inclusiveness, and Tradition. These clearly resembled Schwartz's constructs of achievement/power, universalism, and tradition, respectively. In the five-component solution, Prominence split into components labeled Power and Admiration. This largely mirrored the power-achievement distinction present in many past goal taxonomies (see Table 1). Admiration, however, was somewhat broader and contained items indicative of helpfulness and overt status-seeking (e.g., care, listening, importance).

Problematic components began to appear in the six-component solution. In several cases, the highest-loading items on a component all cross-loaded on another component (e.g., Blandness, Friendship/Health in some solutions). Others were defined by few items and/or highly-redundant items (e.g., the 'Sex' component was defined by the items 'sex', 'lovemaking', 'intercourse'; the 'Womanhood' component was defined by items such as 'womanhood', 'girlishness', 'femininity'). The 10<sup>th</sup> component consisted of only 2 items (i.e., 'Daring' vs. 'Normalcy').

Amid these problematic components, one seemingly viable component emerged in the 9-component solution, 'Intimacy'. However, many of its defining items also loaded on Tradition in the 4- and 5-component solutions. Thus, this component could be understood as a narrower aspect of a broader construct, which arguably represents a different level of abstraction.

We examined the viable solutions (i.e., 2-5 component solutions) across several different methods of extraction (i.e., principal components & factor analysis) and rotation (i.e., varimax &

promax) techniques. In all cases, the same components (or factors) were present and interpretable in a similar (though of course not identical) form.

To concisely illustrate one of the more viable solutions, illustrative item-loadings from the four-component solution are presented in Table 3. These illustrative items were selected because they loaded strongly on the relevant component and illustrated the conceptual breadth of it. Open Science Table 2 provides loadings for all 1,060 items from all 10 solutions.

[Table 3]

Following these analyses, we considered the 4- and 5-component solutions the most viable candidates for further development. Before opting for any solution, however, we considered it important to evaluate which components replicated – especially in a sample representing a broader age range and with a less exhaustive item pool. This was the explicit goal of Study 2.

## **Study 2**

Study 1's sample was diverse in several fashions, such as the inclusion of ethnic Hispanics and three distinct geographic regions. Like all studies of undergraduate students, however, it lacked diversity in terms of participants' age-range and occupation. Since college students share a common goal (i.e., to obtain a college degree) and goals change over the life course (e.g., Neel, Kenrick, White, & Neuberg, 2016), we deemed it especially important to examine the replicability of its results in a sample with a more diverse range of ages and occupations. Study 2's sample was thus recruited online using Amazon's Mechanical Turk system (MTurk). MTurk samples are far more representative of the adult American population than undergraduate samples, while still providing reliable data (Buhrmester, Kwang, & Gosling, 2011)

Study 2 also used a less exhaustive item list, containing only items that were very clearly goal-relevant. We specifically selected 611 items that were consensually rated as representing a clear goal by all five judges in the final round of word-rating (see Research Phase 1).

Supplementary PCAs of these 611 words from Study 1 indicated that all five viable solutions could be replicated with them in that sample (see Open Science Table 2B).

### **Participants**

In all current MTurk studies, only adults ( $\geq 18$  years) currently residing in the United States with an MTurk HIT approval rate of  $\geq 95\%$  were eligible to participate. Users who participated in an initial study were also excluded from later studies. For Study 2, recruitment goals were identical to Study 1. Our final sample consisted of 522 participants.

### **Procedures**

Procedures were largely identical to Study 1, except that participants responded to a shortened list of 611 words that were consensually rated by five judges as indicating a clear goal (see Appendix 1). Because of the shortened protocol, participants were not given the option to save their responses and return to complete the study. Instead, they were merely instructed to take a brief break approximately halfway through the study. The study took approximately 30 minutes to complete on average.

## **Results and Discussion**

### **‘Bass-Ackward’ Analysis of Study 2**

All analytic procedures were identical to Study 1. Similar to Study 1, inspection of several indices thought to indicate the proper number of components to retain (e.g., parallel analysis, inspection of the scree plot) yielded wildly varying estimates (i.e., from roughly 5 to 18

components) (see Supplemental Section 3 for more details). We thus consulted the Bass-Ackwards analysis.

Figure 2 provides a dendrogram of the emerging components. The first four solutions appeared to mirror Study 1. The General Motivation component from the 1-component solution split into Negativity Prevention and Positivity Promotion in the 2-component solution. This provides further evidence that approach/promotion and avoidance/prevention represent broad themes organizing goal-content (Elliot, 2006; Higgins, 1997).

[Figure 2]

In the 3- and 4-component solutions, Tradition and Inclusiveness emerged as independent components. The residual Positivity Promotion component became more specifically focused on Prominence. Thus, the 4-component solution from Study 1 appeared to replicate.

However, the 5-component solution from Study 1 failed to replicate. Power and Admiration did not split into separate components in this solution, or even by the 10-component solution. Instead, problematic components emerged. As in Study 1, many of the components were defined by a small number of redundant items (e.g., the component ‘Manliness vs. Femininity’ was defined by items such as ‘manhood’, ‘masculinity’, ‘femininity’, ‘womanhood’). Several components were so narrow they were defined by only 1-2 items (e.g., ‘Activism’ in several solutions; ‘Anonymity’). In one case, even the highest-loading item (i.e., ‘Incarceration’) cross-loaded on another component.

Similar to Study 1, a couple potentially viable components also appeared amid the problematic components. By the 6-component solution, Inclusiveness had fractured into three. However, ‘Activism’ was quite narrow. Another component (labeled ‘Altruism/Ingenuity’ in Figure 2) was difficult to interpret due to heterogeneous item content. Only ‘Communion’ was

truly viable. By the 9-component solution, ‘Intimacy’ also appeared in a potentially viable form. However, each of these components could be understood as a specific aspect of a more general component. Thus, these components appeared to describe a different level of abstraction than those in the 4-component solution.

By contrast, the 4-component solution appeared to replicate across Studies 1-2. When we subsequently examined this solutions using different methods of extraction (i.e., principal component or factor analysis) and rotation (i.e., promax or varimax), this continued to be the case. To briefly illustrate the nature of the 4-component solution, loadings for an illustrative subset of items are presented in Table 4. The loadings for all 611 items from all 10 solutions examined are presented in Open Science Table 3. As can be seen there, the global nature of the four components appeared to be quite similar across Study 1 and 2.

[Table 4]

### **Congruence between the Four-Component Solutions of Study 1-2**

To more formally quantify the replicability of the four-component solution, we calculated Tucker’s congruence coefficient for each component (Horn, Wanberg, & Appel, 1973; Lorenzo-Seva & ten Berge, 2006; McCrea, Zonderman, Costa, Bond, & Paunonen, 1996). Because relatively minor changes in inter-item correlations can lead to differential rotation across studies in broad-bandwidth inventories (McCrea et al., 1996), we first used the oblique *target.rot* rotation (available in the psych package of R, adapted from Browne, 1972) to rotate each study’s component solutions to maximally align with the other. We then calculated congruence between each set of target-rotated loadings and the original (i.e., promax-rotated) loadings from the other dataset.

The resulting congruence coefficients are reported at the bottom of Table 4, along with averages across both directions of target-rotation. Given our focus on 611 unselected items, we did not necessarily expect congruence to reach levels indicative of equivalence (e.g., .95 or higher; Lorenzo-Seva & ten Berge, 2006). Nonetheless, we expected them to achieve levels indicative of similarity. As can be seen in Table 4, this proved to be the case. All congruence coefficients exceeded Horn et al.'s (1973) .80 criterion for similarity; while all but one coefficient (i.e., for Inclusiveness when the Study 2 loadings were target-rotated) exceeded Lorenzo-Seva and ten Berge's (2006) .85 criterion for similarity. When averaged across both directions of target-rotation, congruence for all four components exceeded .85. Thus, the four-component solutions from Study 1 and 2 can be considered similar.

Nonetheless, it is also important to note that only Negativity-Prevention (i.e., the largest component) achieved congruence levels indicative of equivalence. Thus, the solutions were similar but not identical across studies. To better understand the source of the divergences, we compared the items that loaded on the components in each dataset. An item was deemed to load on a component if the absolute value of its primary loading was greater than .30; and if it was free of cross-loadings within .10 (i.e.,  $|\text{primary loading}| - |\text{secondary loading}| \geq .10$ ). When this was done, 372 of the 611 items were consistent in their loadings. However, the remaining items loaded inconsistently. Prominence lost many items in Study 2 (e.g., graduation, skill, ability, uniqueness, individuality, romance, mating); while Inclusiveness gained many items (e.g., cooperation, friendliness, learning, scholarship, joy, positivity, justice). 32 items in fact moved specifically from Prominence to Inclusiveness (e.g., courage, honor, intellect, knowledge, purpose, wisdom, happiness, optimism). The replicable content thus seems to represent the 'core' of each component. The non-replicable content may reflect more peripheral aspects of the

construct, or even a “blend” of two or more components (i.e., items that are interstitial to ‘pure’ markers of a component; see Hofstee, de Raad, & Goldberg, 1992).

### **Analysis of Ipsatized Scores, Studies 1-2**

Before definitively selecting the four-component solution for further taxonomic development, we conducted PCAs on the ipsatized scores from Study 1-2. Ipsatization is a statistical procedure sometimes used to remove generalized patterns of inter-item covariation that could possibly reflect response bias (e.g., acquiescence bias) or a ‘nuisance factor’ (Rammstedt, Goldberg, & Borg, 2010; Soto, John, Gosling, & Potter, 2008; ten Berge, 1999). This is relevant here because the emerging components were all positively correlated (see Table 6), possibly because of such a response bias. For example, some individuals may be more predisposed to report commitment to long-term goals quite generally (regardless of their actual level of commitment), artificially giving rise to this pattern of correlations.

To ipsatize participants’ scores, we subtracted each participant’s mean response from their individual responses. We then conducted PCAs on these ipsatized scores, focusing on the potentially viable solutions from each study (i.e., Study 1: 2-5 component solutions; Study 2: 2-4 component solutions). The loadings for all items are presented in Open Science table 4A-4B for Study 1 and 2, respectively. The global effect of ipsatization, however, can be summarized quite briefly: it eliminated the Negativity Prevention component. For example, the three-component solution of both studies now contained Prominence, Inclusiveness, and Tradition. The four-component solution added the component which previously appeared fifth (i.e. Power & Anonymity in Study 1 & 2, respectively). The ‘undesirable’ items were dispersed across these various components and began to define a negative pole for each. From a statistical or mathematical perspective, this finding should not necessarily be considered surprising. After all,

what ipsatization directly does is remove sources of inter-item covariation that broadly affect the item pool in general. Negativity Prevention was by far the largest component (i.e., with 367 & 272 items loading on it in Study 1 & 2, respectively). Given that it was scored in the opposite direction of other components, high scores on Negativity Prevention would also lower participants' mean response.

We also inspected the correlations between component-scores from the three-component solution to understand what effect ipsatization had upon them. Prominence, Inclusiveness, and Tradition remained positively correlated, all  $r_s > .29$  (see Open Science Table 4C-4D). Thus, ipsatization did not remove inter-correlations between components. Instead, it eliminated the broadest component.

How should this finding be interpreted? One possibility is to view Negativity Prevention as nothing more than a 'nuisance component' reflecting response bias. If one accepts this hypothesis, it may perhaps seem reasonable to immediately eliminate Negativity Prevention from further consideration. It is certainly possible that this response bias hypothesis will eventually be shown to be correct. Like any hypothesis, however, it should be empirically tested before it is accepted. After all, there are also many reasons for thinking that Negativity Prevention may reflect veridical self-reports of goal-commitment. Many past theories have posited a broad goal construct related to avoidance, prevention, or safety/security (see Table 1). Beyond this, some constructs initially thought to reflect response bias eventually proved to be of substantive psychological interest (e.g., social-desirability; see Kurtz, Tarquini, & Iobst, 2008; McCrea & Costa, 1983). Thus, the only way to determine if Negativity Prevention reflects veridical self-reports or response bias is to develop a measure of it and examine its nomological net. We proceeded to do exactly that.

### **Research Phase 3: Developing and Validating the PINT Goal-Contents Scale**

Thus, Studies 1-2 yielded four replicable components: Prominence, Inclusiveness, Negativity prevention, and Tradition (or the PINT taxonomy). We acknowledge there is need for further examination of the psychometric structure of goal-content (e.g., using different word-selection procedures; sentence-length items; samples from different cultures, etc.), and we are fully open to possible modifications of this taxonomy. Nonetheless, goal-content research would benefit from a succinct measure of these constructs. Such an instrument could be a standard of comparison for future psychometric studies, and it would allow researchers to examine the correlates, causes, and consequences of these goals.

This was the explicit aim of Studies 3-7. We thus began by selecting items from Study 1-2 for use in the PINT Goal-Contents Scale. Study 3 examined this instrument's 4-factor structure. Studies 4-5 examined its relationship with existing goal-content measures. Studies 6-7 examined its broader correlates and stability over time.

#### **Item Selection**

To select a relatively concise number of items to measure the PINT goals, we followed past recommendations (e.g., Clark & Watson, 1995; Simms & Watson, 2007) and used multiple quantitative and conceptual criteria. First, we sought to include items which consistently loaded onto the relevant factor (i.e.,  $|\text{primary loading}| \geq .30$ ), which were also consistently free of cross-loadings (i.e.,  $|\text{primary loading}| - |\text{secondary loading}| \geq .10$ ). This led us to favor items administered in both studies, but we sometimes included items only administered in Study 1 if their loadings were strong and they clearly satisfied other criteria.

Second, we sought to construct scales which were internally consistent in both a conceptual and quantitative sense. Conceptually, we sought to include items which were

subjectively judged to form a coherent construct. Quantitatively, we aimed to achieve Cronbach's  $\alpha$ s that consistently exceeded .70.

Third, we sought to create scales that represented the full conceptual breadth of the components derived in Study 1-2. Conceptually, we sought to include items that appeared to represent disparate aspects of the construct (e.g., items representing victory, power, image, and money for Prominence; items representing religion, nation, and family for Tradition). Quantitatively, we sought to exclude highly-redundant items (i.e., which correlated  $\geq .50$ ) and instead include items with more modest inter-item correlations (i.e.,  $r \geq .15$  &  $\leq .50$ ), resulting in an average inter-item correlation (AIC) of approximately .25. This would represent a relatively broad but nonetheless coherent construct (see Clark & Watson, 1995; Simms & Watson, 2007). Adopting this criterion had several initially unanticipated consequences. For example, the Negativity Prevention items that seemed most face-valid (e.g., distress, problem) were highly redundant with one another. Thus, we instead selected items that represented rather disparate undesirable events (e.g., isolation, fighting, fatness, mediocrity). Likewise, nine highly-redundant religious items loaded most strongly on Tradition (i.e., church, faith, god, heaven, holiness, religion, salvation, spirituality & worship; Study 1 AIC = .65; Study 2 AIC = .60). These words were excluded, leaving three less redundant, religious items (blessedness, pureness, atheism-reversed) amid a broader construct.

Fourth, we sought to create relatively brief scales. We set no specific benchmarks to achieve in this regard, but instead attempted to minimize scale length while still satisfying other criteria. Fifth, we sought to ensure that the resulting scales correlated strongly with the full components from Studies 1-2. None of these criteria were enforced in an absolutist fashion.

Instead, we aimed to satisfy all criteria simultaneously to a reasonable degree. Candidate items were removed and added to the scales in an iterative fashion until this was deemed to be the case.

The final 43 items selected for the PINT Goal-Contents Scale are presented in Appendix B. (Please note that this scale is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License. Thus, other researchers are free to administer it to participants for non-commercial purposes; but it cannot be used for commercial purposes without explicit consent from the authors.) Cronbach's  $\alpha$ s, AICs, and scale-component correlations are presented in Table 5. As can be seen there, the scales were internally reliable across studies (i.e., all  $\alpha$ s > .70). McDonald's  $\omega$ s are also presented in Open Science Table 5 (see Dunn, Baguley, & Brunsen, 2014), and they generally corresponded with  $\alpha$  and supported the internal reliability of the scales. These constructs were nonetheless still broad in their conceptual scope (as indicated by the modest AICs). This was true not only in Studies 1-2 (i.e., which motivated the selection of these items), but also in all other studies. In Studies 1-2, these scales were also strongly correlated with the larger components they were meant to represent.

[Table 5-7]

Descriptive statistics and inter-scale correlations are presented in Table 6 and 7, respectively. As can be seen there, the scales tended to be positively correlated with one another. This is the first indication that these scales share some degree of statistical and (presumably) conceptual overlap. We were thus especially interested in identifying the nature of this by looking for overlaps in their nomological network. Nonetheless, these correlations are quite modest (i.e.,  $r \approx .30$  or lower), attesting to the PINT scales' overall independence.

### Study 3

Study 3 was designed to evaluate the 4-factor structure of the PINT Goal-Contents Scale. Exploratory Structural Equation Modelling (ESEM) was used to evaluate the 4-factor structure, as this analytic technique has proven effective in the evaluating the structure of broad-bandwidth inventories (Marsh et al., 2010; see Supplemental Section 4 for a more detailed discussion).

## **Method**

### **Power Analysis**

A series of Monte Carlo simulations were conducted to estimate the sample size needed for Study 3 (see Brown, 2015, p. 387; Muthen & Muthen, 2002). These simulations were conducted using MPlus (version 7.4). In each simulation, Study 1's results were used to specify all parameters of the model (i.e., factor-loadings, correlations between latent factors, etc.) in a simulated population. (Study 2's data was not used because 4 items were not administered.) 10,000 samples of a given size (i.e., 100, 200, 300, 390, 400, & 500 participants) were then taken from this simulated population, and the model was applied to each. All parameters were evaluated according to two criteria: 1) The bias in estimating each parameter and its standard error should be less than 10%; 2) coverage should be between 91% and 98%. Each parameter of substantive interest (i.e., each item's primary loading, in this case) was also evaluated according two additional criteria: 3) Bias in estimating the standard error should be less than 5%; and 4) These parameters should statistically-significant in at least 80% of samples. Simulations indicated that 400 participants were needed to test this model, and thus we aimed to recruit at least 400 participants for Study 3.

### **Participants, Materials, and Procedure**

The final sample retained for analyses consisted of 420 MTurk users. After accessing the study, participants provided informed consent, completed the PINT Goal-Contents Scale (see Appendix B), provided demographic information, and were debriefed.

### Results

An ESEM was estimated using MPlus (version 7.4), in which all 43 items were allowed to load onto 4 inter-correlated latent factors. Standardized loadings are presented in Table 8, along with error terms and latent factor correlations. As can be seen there, each item exhibited a clear primary loading on its intended factor in the expected direction (all |primary loadings| > .36). As expected, many items exhibited modest cross-loadings on a secondary factor (i.e., 32 items had |secondary loadings| > .10). However, none of these were within .10 of the primary loading (i.e., minimum difference score = .15, for ‘moneymaking’). Thus, each item was most strongly indicative of the intended construct.

[Table 8]

In the current study, there were also multiple indications of excellent global model fit:  $\chi^2(737) = 1493.71, p < .0001$ ; RMSEA = .049, 90% CI = [.046, 053]; SRMR = .043. The 90% CI for RMSEA were below .06, thus meeting multiple guidelines for ‘excellent’ model fit (e.g., Browne & Cudeck, 1993; Hu & Bentler, 1999). Likewise, SRMR was clearly below several guidelines for ‘excellent’ model fit (i.e., .08 or .05; Hu & Bentler, 1999; Kline, 2005). In Supplemental Section 4, we provide a more detailed discussion of global model fit for the especially interested (and knowledgeable) reader (including comparative model fit indices).

### Study 4-5

Having supported its four-factor structure, we next began examining the nomological net surrounding the PINT Goal-Contents Scale. In Studies 4-5, we specifically examined these

scales' relationships with past goal-content measures. We specifically focused on measures from Schwartz's (2012) value theory, goal contents theory (e.g., Kasser & Ryan, 1996), the interpersonal circumplex (Locke, 2000), the fundamental social motives (Neel et al., 2016), and approach/avoidance goals (Elliot, 2006).

Given the novelty and bottom-up derivation of the PINT goals, our hypotheses (listed in Table 9) were necessarily tentative in nature, but also straightforward. Broadly, we hypothesized that Prominence would converge most strongly with goals involving the pursuit of high social rank, as well as approach motivation. We also tentatively expected it to converge most strongly with scales indicative of Power (rather than the related construct of Achievement). We expected Tradition to converge with other measures of the commitment to the long-standing institutions of one's cultural in-group (i.e., nation, church, family). By contrast, we hypothesized that Inclusiveness would converge most clearly with measures emphasizing positive relations with all people (i.e., Universalism values), as well as social-improvement or personal growth.

[Table 9]

Schwartz (2012) has presented evidence that Benevolence values (i.e., for positive social relations with family, friends, etc.) are situated between Universalism and Tradition values. We thus predicted that Inclusiveness and Tradition would be equally related to any measure that more generically emphasized positive social relations (e.g., Communion, Relationship Aspirations). This would suggest that these constructs represent two forms of affiliative motivation. Finally, we hypothesized that Negativity Prevention would converge with constructs emphasizing avoidance of negative events, especially negative social events.

In Study 4, we examined these hypotheses in a predominantly Latinx, undergraduate sample. In Study 5, we examined the same hypotheses (excluding those focused on academic

achievement) in a sample of MTurk users. This allowed us to examine the generalizability of results across different age groups and ethnicities.

## **Method**

### **Participants**

**Data Collection Goals:** In Studies 4-7, we focused on obtaining stable estimates of correlations, rather than obtaining sufficient power to achieve statistical significance. As such, we aimed to recruit 250 participants, as Schonbrodt and Perugini (2013) demonstrated that correlations stabilize at this sample size under most conditions.

**Study 4:** We were able to recruit 204 participants who provided valid data from the University of Texas, El Paso prior to the end of academic year. Please note that our inability to reach the original data collection goal in part motivated Study 5. Regardless of this limitation, Study 4 provides unique information (given the sample's demographics; see Table 2).

**Study 5:** Our final sample included 258 MTurk users.

### **Procedures and Measures**

After providing informed consent, participants completed the PINT Goal-Contents Scale. They then completed the following measures in a random order. Items within each scale were also randomized. Participants then completed demographic questions and were debriefed.

**Portrait Values Questionnaire (PVQ;** Schwartz, Melech, Lehmann, Burgess, & Harris, 2001; Schwartz, 2012): This instrument is designed to measure 10 values (security, conformity, tradition, benevolence, universalism, self-direction, stimulation, hedonism, achievement, power), which are thought to be arranged in a circumplex structure. They can be organized into 4 higher-order constructs, namely conservation (security, conformity, tradition), self-transcendence (benevolence, universalism), openness to change (self-direction, stimulation), and self-

enhancement (achievement, power). In the current studies, we report the PINT goals' correlations with the 10 lower-order values as well as the 4 higher-order constructs.

To measure these values in as concrete a manner as possible, the PVQ asks participants to read 40 descriptions of a gender-matched person (e.g., for conformity, “She believes that people should do what they're told. She thinks people should follow rules at all times, even when no-one is watching.”) and indicate how similar they are to each person, using a 1 (not like me at all) to 6 (very much like me) response scale. We should note that the 10-value version of this theory has by far received the most attention. We focused on it for that reason, rather than the earlier 7-value version (Schwartz & Bilsky, 1990) or later versions containing as many as 19 values (Schwartz et al., 2012).

**Circumplex Scales of Interpersonal Values** (CSIV; Locke, 2000; 2015): This instrument measures eight goals (or values) from the interpersonal circumplex. This circumplex is primarily defined by communal goals (i.e., for positive social relationships) and agentic goals (i.e., for high social standing). Low communion and low agency goals are referred to as separation and submissive goals, respectively. Four additional scales represent all possible blends of high and low levels of communion and agency (i.e., Agentic/Communal, Submissive/Communal, Submissive/Separate, Agentic/Separate). To measure these goals, participants are asked to indicate how important 64 goals are to them in interpersonal situations (e.g., “that they admit it when they are wrong” for Agentic goals, “that I feel connected to them” for Communal goals), using a 0 (not important) to 4 (extremely important) response scale.

**Aspiration Index** (AI; e.g., Kasser & Ryan, 1996; Kasser, 2018). This instrument is designed to measure two higher-order and six lower-order constructs within goal-content theory (a sub-theory of self-determination theory; Ryan & Deci, 2017). Intrinsic and Extrinsic

aspirations are thought to represent life-goals which are congruent and incongruent (respectively) with basic psychological needs proposed in this theory (i.e., for relatedness, autonomy, & competence). This instrument specifically measures the intrinsic aspirations for meaningful relationships, community contribution, and personal growth; as well as the extrinsic aspirations for wealth, image, and fame.

Participants were asked to read descriptions of 30 different life-goals (e.g., “to help people in need” for intrinsic/community aspirations; “to be rich” for extrinsic/wealth aspirations) and indicate how important each is to them, using a 1 (not at all) to 7 (very) response scale. In the current studies, we report the PINT goals’ correlations with the 2 higher-order aspirations, as well as the 6 sub-components.

**Fundamental Social Motives Scale** (FSMI; Neel et al., 2016). This instrument is designed to measure individual differences in the fundamental social motives (Kenrick et al., 2010; Schaller, Kenrick, Neel, & Neuberg, 2017). In the current studies, we administered eight measures which the authors indicated are appropriate for use with all participants, regardless of relationship- or parental-status: Self-Protection, Disease-Avoidance, Exclusion-Concern (affiliation), Group-Affiliation, Independence (affiliation-reversed), Mate-Seeking, and Kin-Care (Family). To measure these motives, participants were asked to indicate how strongly they agree (1 = strongly disagree; 7 = strongly agree) with 48 statements describing the different motives (e.g., “I worry about dangerous people” for self-protection; “I want to be in a position of leadership” for status).

**BIS/BAS** (Carver & White, 1994; cf. Corr & Cooper, 2016): This instrument measures broad individual differences in reactivity to reward (i.e., Behavioral Approach System; or BAS) and punishment (i.e., Behavioral Inhibition System; or BIS). Although BIS is measured as a

unitary construct, there are three BAS subscales – Drive, Reward-Responsiveness, and Fun-Seeking. To measure these constructs, participants read a series of 20 statements (e.g., “I worry about making mistakes” for BIS; “When I get something I want, I feel excited and energized” for BAS-Reward-Responsiveness). Participants are asked to indicate how true each statement is, using a 1 (very false for me) to 4 (very true for me) response scale. In the current studies, hypotheses were focused on the higher-order constructs of BIS and BAS. However, we also report the PINT-Goals’ correlations with the BAS subscales for completeness.

**Social-Approach and Avoidance** (Elliot et al., 2006; Gable & Impett, 2012): This instrument measures approach and avoidance-oriented goals in the social domain specifically. In the current studies, we used a version of this instrument designed to measure friendship-oriented goals, as these goals are universally relevant to all participants (unlike romantic goals). Participants were asked to read 8 statements (e.g., “I am trying to deepen my relationships with my friends” for Social-Approach; “I am trying to avoid disagreements and conflicts with my friends” for Social-Avoidance) and indicate how true each statement is for them using a 1 (not at all true of me) to 7 (very true of me) response scale.

**Achievement Goals Questionnaire** (Elliot & McGregor, 2001): This instrument measures four goals in the 2 x 2 achievement goals framework, namely performance-approach, performance-avoidance, mastery-approach, and mastery-avoidance. Performance goals focus on either outperforming others (approach) or not being outperformed by others (avoidance) academically. Mastery goals focus on improving one’s knowledge and skills (approach) or worries about not fulfilling one’s potential (avoidance).

To measure these goals, participants are asked to read 12 statements (e.g., “It is important for me to do better than other students” for performance-approach; “I just want to avoid doing

poorly in my class” for performance-avoidance) and indicate how true each statement is for them, using a 1 (very untrue of me) to 7 (very true of me) response scale. Study 4 participants were asked to provide answers in reference to their classes in general. This measure was not administered in Study 5, as it would not be relevant to non-student MTurk workers.

### Results

The PINT-Goals’ correlations with the Schwartz and Interpersonal Circumplex values are reported in Table 10; and with all other measures in Table 11. For each instrument and level-of-analysis (e.g., the higher- or lower-order factors of the PVQ), we also report whether the strongest, significant, hypothesized correlation was significantly different from any other correlation, using the procedures developed by Meng, Rosenthal, and Rubin (1992). For ease of interpretation, we organize our discussion by the PINT-Goals:

[Table 10-11]

**Prominence:** We expected Prominence to correlate most strongly with other constructs reflecting a goal for high social rank (e.g., status, wealth). Results were largely consistent with this broad expectation. Prominence was most strongly correlated with Self-Enhancement, Power, and Achievement values within the Schwartz Value Circumplex; Agentic and Agentic/Communal values within the Interpersonal Circumplex; Extrinsic, Wealth, and Image aspirations on the AI; and Status within the Fundamental Social Motives.

Because Prominence formed the core of a higher-order Positivity Promotion factor in our initial studies (see Figures 1-2), we also expected it to be related to approach motivation. Consistent with this, Prominence was more strongly related to BAS (and all its subscales) than to BIS. It was also quite strongly related to Hedonism values on the PVQ. Finally, there was some

evidence that it was related to Performance-Approach goals (i.e., to outperform others), though this correlation was rather modest.

Although findings were generally in line with hypotheses, no correlation was strong enough to suggest full equivalence (i.e., maximum  $r = .54$ , well below the .70-.80 criteria often taken to indicate equivalence). Thus, Prominence is related to, but nonetheless distinct from each of these constructs. This may be because Prominence is a rather broad construct, which incorporates several more specific constructs.

Beyond this, two deviations from expectations occurred. We expected Prominence to correlate most strongly with CSIV-Agency (e.g., ‘that others obey me’) and PVQ-Power (e.g., ‘to be in charge’). (We even initially labeled this scale ‘Power’ following Study 2.) This would suggest that Prominence reflects a pure striving for high social rank, independent of the motivation for positive social relationships. Across studies, however, it was more strongly related to CSIV-Agentic/Communal goals (e.g., ‘to be respected & listened to’) and PVQ-Achievement values (e.g., ‘to impress others’, ‘be admired’). This suggests that Prominence represents a striving for status (Anderson, Hildreth, & Howland, 2015) or prestige (Henrich & Gil-White, 2001). In other words, it appears to represent a goal to earn the respect and voluntary deference of others through one’s accomplishments. Consistent with this, Prominence also exhibited significant correlations with constructs emphasizing positive social relationships – including CSIV-Communal goals, AI-Intrinsic Aspirations, FSMI-Group-Affiliation motives, Social-Approach goals, and even Social Avoidance goals. These correlations were generally weaker than the hypothesized effects, but they nonetheless suggest that Prominence involves a communal (rather than antagonistic) form of status-striving. This also helps to explain

Prominence's positive correlation with Inclusiveness and Tradition. Like these other constructs, it shares an emphasis on maintaining positive social relationships.

**Inclusiveness and Tradition:** We hypothesized that Inclusiveness and Tradition would most clearly diverge in their correlates with the Schwartz Values Circumplex. Consistent with this, Inclusiveness was most strongly correlated with Self-Transcendence and Universalism values (e.g., 'to treat everyone justly, even people you don't know'). It also exhibited rather strong correlations with the neighboring values of Benevolence (e.g., 'to be loyal to one's friends') and Self-Direction (e.g., 'to make one's own decisions'). By contrast, the PINT Tradition scale was most strongly correlated with PVQ-Conservation and PVQ-Tradition values (e.g., 'to do what one's religion requires'). Thus, the PVQ provided evidence of a clear divergence between the PINT Inclusiveness and Tradition scales.

Beyond this, we conceptualized Inclusiveness and Tradition as two different forms of the motivation for positive social relations, and expected them to exhibit roughly equivalent correlations with constructs of this type. Results were largely consistent with this. Both Inclusiveness and Tradition were correlated with CSIV Communal values (and neighboring values), AI Intrinsic Aspirations (especially Community & Meaningful Relationships), FSMI Group-Affiliation and Kin-Care scales, Social-Approach, and even Social-Avoidance.

Although results were generally consistent with our broad suppositions, a few specific findings were not exactly in line with predictions. Kin-Care (Family) was equally related to both Inclusiveness and Tradition (rather than more strongly related to Tradition). Inclusiveness's relationship with Mastery-Approach was very modest. We also expected Inclusiveness to be more strongly related to AI-Community and AI-Personal Growth than Tradition. Although there

was evidence of this in Study 5, there was not in Study 4. This could represent a cross-cultural difference with Latinx populations, or it could just reflect an unreliable finding.

Aside from these divergences, however, Study 4-5 generally supported the interpretation of Inclusiveness and Tradition as ‘innovative’ and ‘conventional’ forms of affiliative motivation, respectively. While they converged with these constructs, none of the correlations were so high as to suggest equivalence. Thus, Inclusiveness and Tradition are not redundant with prior measures, possibly because they are broad constructs which capture many aspects of more specific constructs.

**Negativity Prevention:** We broadly hypothesized that Negativity Prevention would be related to past measures of avoidance motivation. Quite surprisingly, there was decidedly little evidence to support this. Negativity Prevention did not exhibit a significant correlation with BIS, FSMI-Exclusion Concern, or CSIV-Submission in either study. Results were inconsistent across studies with FSMI-Self-Protection, FSMI-Disease-Avoidance, and Social-Avoidance. Even when these relationships were significant in one study, they were typically rather modest in size. Negativity Prevention did exhibit a significant relationship with PVQ-Security and Performance-Avoidance goals as predicted, but these effects were quite modest and not consistently stronger than correlations with other subscales on the same instruments.

Thus, our initial conceptualization of Negativity Prevention was inaccurate. It was not strongly related to past measures of avoidance motivation. This could raise further concerns that Negativity Prevention merely reflects a response bias (see section titled, ‘Analysis of Ipsatized Scores, Studies 1-2’, above). Following these studies, we had such concerns ourselves. Nonetheless, it is also possible that Negativity Prevention represents veridical reports of a goal construct not represented in previous taxonomies. One way to assess this is to look to see if it has

a meaningful pattern of correlations outside of the goal-content literature, and we pursued this possibility in Studies 6-7.

There were two unexpected correlations that helped to guide our ensuing investigation in this regard. First, Negativity Prevention was consistently (although modestly) related to greater AI Personal Growth aspirations. This could suggest that it represents a desire to grow and overcome current negative circumstances. Second, Negativity Prevention was consistently related to lower levels of CSIV Separateness goals. Thus, it may reflect a desire to avoid social detachment. One purpose of Study 6-7 was to thus to better understand Negativity Prevention.

### **Study 6-7**

The first broad aim of Study 6 was to begin establishing the broader nomological net surrounding the PINT Goals. As in Studies 4-5, all hypotheses were necessarily tentative in nature (see Table 12). Past authors have suggested that the Big Five traits may influence the goals a person adopts (e.g., Costa & McCrae, 1994), and that the pursuit of certain goals may conversely alter one's personality over time (e.g., Roberts, O'Donnell, & Robins, 2004). Thus, we examined the PINT Goals' relationship with the Big Five traits. Because several PINT Goals seemed to correspond to specific aspects of the Big Five (e.g., Prominence & the Assertiveness aspect of Extraversion), we used a measure which splits each of the Big Five traits into two aspects (DeYoung et al., 2007).

Past theories also propose that the pursuit of certain goals should influence life satisfaction (Kasser & Ryan, 1996), affective experience (Corr et al., 2013; Elliot, 2006), and satisfaction of theorized psychological needs (i.e., for autonomy, relatedness, & competence; Ryan & Deci, 2017). We thus administered measures of these constructs. In a couple instances,

different theories made diverging predictions. In such cases, we open-endedly examined both possibilities.

[Table 12]

The second aim of Study 6 was to better understand the construct of Negativity Prevention. By its very nature, this scale focuses on a broad goal to prevent or avoid negative outcomes. Surprisingly though, Studies 4-5 indicated that it is at best weakly related to past avoidance-related constructs – including BIS, social-avoidance, and performance-avoidance goals. We therefore open-endedly explored whether it was instead related to other relevant constructs, such as Prevention Pride (Higgins et al., 2001), Attachment-Anxiety, Attachment-Avoidance (Brennan, Clark, & Shaver, 1998), the Flight-Fight-Freeze System (Corr & Cooper, 2016); negative affect (Watson & Clark, 1994), or specific aspects of neuroticism (i.e., volatility or withdrawal). Because its most consistent correlates in Study 4-5 were seemingly desirable (i.e., personal growth & lesser separation motivation), we also considered the possibility that it is associated with reduced negativity (e.g., low negative affect or the Politeness aspect of agreeableness).

The final aim of Study 6 was to examine the test-retest reliability of the PINT-Goals. As such, participants were asked to complete this scale a second time one month later. Study 6 examined these hypotheses in an MTurk sample. Study 7 examined the replicability of a couple interesting findings from Study 6 (related to subjective well-being) in a sample of undergraduates and further examined the test-retest reliability of the PINT-Goals.

## **Method**

### **Participants**

**Study 6:** 246 MTurk users were retained for analyses of Time 1 data. Of these, 121 provided valid Time 2 data 1 month later.

**Study 7:** 269 undergraduate psychology students from the University of Wyoming were retained for analyses of Time 1 data. Of these, 184 participants provided valid Time-2 data 1 month later.

## **Procedures**

At time 1, participants in both studies were asked to provide informed consent and then to complete the PINT-Goals Scale. In Study 6, participants then completed each of the measures described below in a random order. In Study 7, participants only completed the PANAS-X and the Satisfaction with Life Scale, also in a random order. One month later, participants in both studies were asked to complete the time 2 questionnaire. MTurk participants in Study 6 were offered further payment for doing so; while the undergraduate participants in Study 7 were not given course credit unless they completed both the time 1 and time 2 surveys (i.e., to provide stronger incentives for time 2 completion in this study). The Time 2 questionnaire again included in the PINT Goal-Contents Scale. To provide a comparison for the PINT's test-retest reliability, the PANAS-X and Satisfaction with Life Scale were also administered at Time 2.

## **Measures**

**Big Five Aspects Scale** (DeYoung et al., 2007): This instrument measures the Big Five traits, as well as two more specific aspects of each trait. Extraversion is decomposed into the aspects of Assertiveness (e.g., 'take charge') and Enthusiasm (e.g., 'make friends easily'); Agreeableness into Compassion (e.g., 'sympathize with others' feelings') and Politeness (e.g., 'respect authority'); Conscientiousness into Orderliness (e.g., 'see the rules are observed') and Industriousness (e.g., 'carry out my plans'); Neuroticism into Volatility ('get easily agitated')

and Withdrawal (e.g., ‘worry about things’); and Openness/Intellect into Openness (e.g., ‘need a creative outlet’) and Intellect (‘can handle a lot of information’). To measure these constructs, participants indicate how strongly they agree with 100 statements, using a 1 (disagree) to 5 (agree) response scale. In the current study, we focus on the PINT-Goals’ relationships with both the Big Five traits as well as the 10 aspects.

**Positive Affect and Negative Affect Scales – Expanded (PANAS-X; Watson & Clark, 1994; cf. Gray & Watson, 2007):** This instrument measures two higher-order factors of Positive Affect and Negative Affect, as well as seven more specific facets. To do so, participants indicated the extent to which they experience 46 different affective states generally in their lives. We focus mainly on the higher-order constructs, though items measuring the lower-order facets of negative affect (hostility, fear, guilt, sadness) and positive affect (attentiveness, self-assuredness, joviality) were also administered. We highlight these latter aspects only to the extent they add to our understanding of the PINT scale (see Table OS6-OS7 for all results).

**Satisfaction with Life (Diener, Emmons, Larsen, & Griffin, 1985; Pavot & Diener, 2008):** This instrument briefly measures people’s cognitive judgment of how satisfying their life is as a whole. Participants read five items (e.g., “In most ways, my life is close to my ideal”) and indicate how strongly they agree with each, using a 1 (strongly disagree) to 7 (strongly agree) response scale. As is frequently done, we present both this scale in isolation and a subjective well-being composite which represents the average of positive affect, negative affect (reversed), and life satisfaction.

**Balanced Measure of Psychological Needs (BMPN; Sheldon & Hilpert, 2012):** This instrument is designed to measure satisfaction and dissatisfaction with the three psychological needs proposed in self-determination theory (Deci & Ryan, 2000) – autonomy (e.g., “I was free

to do things my own way” - satisfaction), relatedness (e.g., “I was lonely” – dissatisfaction), and competence (e.g., “I did well even at the hard things” - satisfaction). To do so, participants read 18 items and indicated their level of agreement with each, using a 1 (no agreement) to 5 (much agreement) response scale. Sheldon and Hilpert suggested that this instrument is best understood in terms of a 3 (need: autonomy, relatedness, competence) x 2 (satisfaction: satisfaction vs. dissatisfaction) framework. Here, we present the highest and lowest possible levels of abstraction (i.e., 6 & 1) to concisely highlight the most general and specific patterns.

**Reinforcement Sensitivity Theory of Personality Questionnaire (RST-PQ;** Corr & Cooper, 2016): This instrument seeks to improve upon Carver and White’s (1994) original BIS/BAS scale in several fashions. First, it distinguishes individual differences in the sensitivity of a theorized Fight-Flight-Freeze System (FFFS; related to fear and active avoidance) from a theorized BIS system (related to anxiety, approach-avoidance conflict, and risk assessment). It also distinguishes four aspects of BAS, namely Reward Reactivity, Goal-Driven Persistence, Reward Interest, and Impulsivity. To do so, participants are asked to indicate how accurately 65 statements (e.g., ‘I would run quickly if fire alarms in a shopping mall started ringing’ for FFFS; ‘I’m always weighing-up the risk of bad things happening in my life’ for BIS) describes them, using a 1 (not at all) to 4 (highly) response scale.

**Regulatory Focus Questionnaire (RFQ;** Higgins et al., 2001; cf. Haws, Dholakia, & Bearden, 2010; Summerville & Roese, 2008): This instrument seeks to measure participants’ subjective history of success at tasks pursued with a promotion-focus and a prevention-focus. Promotion-focus and prevention-focus are similar to approach and avoidance motivation, respectively. However, there are important differences. The RFQ specifically adopts a ‘self-guide’ definition of regulatory focus, and asks participants about their subjective history of

success at achieving internally-chosen ideals (i.e., promotion pride) and externally-imposed obligations (i.e., prevention pride). To do so, participants read 11 items (e.g., “How often did you obey rules and regulations that were established by your parents?” for Prevention-Pride; “I feel like I have made progress toward being successful in my life” for Promotion-Pride) and indicate how true they are of themselves using a 1 to 5 response scale.

**Experiences in Close Relationships-Short Form** (ECR-S; Brennan et al., 1998; Wei, Russell, Mallinckrodt, & Vogel, 2007). This instrument measures the two dimensions of attachment style – namely attachment-anxiety (i.e., fear of rejection, excessive need for approval) and attachment-avoidance (i.e., fear of intimacy, excessive need for self-reliance). We used a 12-item short form (Wei et al., 2007). Participants indicate how strongly they agree with each statement (e.g., “I try to avoid getting too close to my partner” for avoidance; “My desire to be very close sometimes scares people away” for anxiety), using a 1 (disagree strongly) to 7 (agree strongly) response scale.

**Other Measures:** Three other instruments were administered as part of Study 6 (i.e., fear of negative evaluation, empathic concern, & emotion regulation) but added little to our understanding of the PINT goals. We thus report them in Open Science Table 6, but omit them here. We also added exploratory items to the PINT, designed to measure blends of the PINT-Goals. We hope to focus on these items in a separate manuscript; but do not focus on them here.

## **Results and Discussion**

Correlations between the PINT-Goals and other constructs of interest are reported in Table 13-14 for Study 6-7, respectively. They indicate which correlations are significantly different from the strongest, significant, and hypothesized correlation for a given PINT-Goal within the same scale.

[Tables 13-14]

**Prominence:** Study 6-7 clearly supported an approach motivation conceptualization of Prominence. It was most strongly correlated with all aspects of BAS, Positive Affect (in both studies), Extraversion, and Promotion Pride. Beyond this, there was evidence that it was more strongly related to approaching social status more specifically, as Prominence was significantly more strongly correlated with the Assertiveness aspect of Extraversion than the Enthusiasm aspect,  $Z = 2.62, p = .008$ . Interestingly, it was also more strongly related to Intellect than Openness at the aspect level,  $Z = 2.19, p = .03$ .

Prominence was also associated with *greater* (rather than lesser) Total Need Satisfaction (from the self-determination theory tradition), and this effect was strongest for Competence and Autonomy Need Satisfaction. This pattern is quite consistent with research on the attainment of status and benefits for well-being (Anderson et al., 2015). However, it points to an important difference between Prominence and Extrinsic Aspirations, as Extrinsic Aspirations have often been found to predict lower well-being (Ryan & Deci, 2017). We speculate that this may be because Prominence has a more communal profile than the Extrinsic Aspirations (see Study 4-5), which may make it compatible with psychological needs and well-being.

**Inclusiveness:** Broadly, Study 6 supported the conceptualization of Inclusiveness as a goal to open-mindedly accept people of all types. Regarding the Big Five, it was most strongly associated with Openness/Intellect and Agreeableness. It was also more strongly related to the Compassion aspect of Agreeableness than Politeness,  $Z = 2.53, p = .01$ . Beyond this, multiple findings suggested that it may lead to more positive social relationships – including correlations with Relatedness Need Satisfaction and lower Attachment-Avoidance. As in Studies 4-5, there

were suggestions of a modest link with approach/promotion – most especially Reward-Responsiveness, but also Reward-Interest, Persistence, and Promotion Pride.

Somewhat surprisingly, Inclusiveness was the only PINT-Goal that was not clearly related to well-being in some way. In Study 6, it exhibited no significant correlations with any well-being measure. In Study 7, it exhibited modest (but significant) correlations with both greater positive affect and greater negative affect. These findings are especially surprising in light of its links to positive social relationships. They could suggest that Inclusiveness is related to other constructs which undermine well-being. One possibility is that Inclusiveness involves acknowledging and accepting injustices in the current system (Furnham, 2003; Napier & Jost, 2008). In this way, it could function as a social form of self-improvement motivation (Sedikides & Hepper, 2009), such that dissatisfaction motivates actions intended to change and improve social arrangements (Johnson & Fujita, 2012; Packer & Miners, 2014).

**Negativity Prevention:** Consistent with Studies 4-5, Negativity Prevention was unrelated to many previously-developed avoidance-related constructs – including BIS (which emphasizes anxiety), FFFS (which emphasizes fear), Neuroticism, or the Withdrawal aspect of Neuroticism (i.e., emphasizing depression & anxiety;  $r = -.08$ ). Instead, there were multiple suggestions that Negativity Prevention may lead to the *successful* prevention of negative events – especially interpersonal conflict and disagreement. Definitive confirmation of this speculation (especially the causal implication) is of course well beyond the scope of this manuscript. Nonetheless, it exhibited significant inverse correlations with Negative Affect (which were strongest for the Hostility facet, Study 6:  $r = -.42$ , Study 7:  $r = -.20$ ), the Volatility aspect of Neuroticism (which emphasizes anger), Attachment-Anxiety, Attachment-Avoidance, and even the Impulsivity component of BAS. Within the Big Five, it was broadly related to Agreeableness,

Conscientiousness, and Openness/Intellect – all traits which have been linked to positive social relationships and the fulfillment of social obligations. It was also related to every component of Need Satisfaction – especially reduced Thwarting of Relatedness and Competence Needs.

Finally, Negativity Prevention was the only PINT-Goal which exhibited a significant correlation with Prevention Pride – a construct which emphasizes a past history of successfully fulfilling externally-imposed obligations (especially for one's parents).

In sum, Negativity Prevention was meaningfully related to external constructs. Despite the effects of ipsatization on it (see 'Analysis of Ipsatized Scores' section above) or its lack of strong correlation with past goal constructs (see Study 4-5), we tentatively suggest that it reflects veridical reports of goal-commitment (rather than response bias). Nonetheless, further research is certainly needed to examine the degree to which it reflects veridical reports vs. response-bias.

**Tradition:** Study 6-7 broadly supported the conceptualization of Tradition as one form of motivation for positive social relationships. Regarding the Big Five, it was most strongly related to Agreeableness, Conscientiousness, as well as Extraversion. At the aspect level, its correlation with the Enthusiasm aspect of Extraversion was significantly stronger than its correlation with Assertiveness,  $Z = 2.05, p = .04$ . In contrast to expectations, its correlation with the Compassion aspect of Agreeableness was significantly stronger than its correlation with Politeness,  $Z = 2.15, p = .03$ ; and there were no significant differences between its correlation with the Orderliness and Industriousness aspects of Conscientiousness,  $Z = .87, p = .38$ . It was also associated with multiple indices of positive social relationships – including Relatedness Need Satisfaction and reduced Attachment-Avoidance. Study 6 also suggested that it is modestly correlated with approach/promotion motivation (i.e., goal-driven persistence, reward-responsiveness, & promotion-pride).

Perhaps most interestingly, Tradition exhibited a robust relationship with Subjective Well-Being – especially Life Satisfaction and Positive Affect. These effects were consistent across both studies (though the relationship with negative affect was less consistent). This pattern thus echoes past research linking religiosity (Diener, Suh, Lucas, & Smith, 1999) and political conservatism (Napier & Jost, 2008) to well-being. However, Tradition’s correlations with well-being are notably stronger than those of religiosity or conservatism.

**One-Month Stability:** Tables 13-14 also display the one-month test-retest correlations for the PINT-Goals, as well as subjective well-being (as a comparison). In both studies, Prominence, Inclusiveness, and Tradition all exhibited generally strong test-retest correlations (all  $r_s > .60$ ), which were generally comparable in magnitude to the PANAS (a well-validated scale which also uses single-words as items). The test-retest reliability of Negativity Prevention was somewhat lower in Study 6, but it was more comparable to the other PINT scales and the PANAS in Study 7. This may be due to the fact that, in Study 6, Time-1 Negativity Prevention was quite a powerful predictor of Time 2 Completion,  $t(245) = 2.88, p = .004$  (Completers’  $M = 1.67$ ; Non-Completers’  $M = 1.18$ ). No such effect was observed in Study 7, perhaps because we offered stronger incentives for time-2 data completion in that study (i.e., no credit was granted unless time-2 data was provided). Further research is clearly needed, especially in relation to Negativity Prevention. Nonetheless, these studies clearly indicate that Prominence, Inclusiveness, and Tradition are stable constructs; and that Negativity Prevention likely is.

### **Relationship to Demographic Variables**

A final question is how the PINT-Goals relate to demographic variables. The PINT-Goals exhibited no consistent relationship of note with income or minority status (all average  $|r|$ s across studies  $< .10$ ; see Open Science Table 8). However, Tradition was related to a more conservative

political ideology (average  $r$  across studies = .37); while Inclusiveness was related to a more liberal (i.e., less conservative) ideology (average  $r$  = -.22). These effects are perhaps not especially surprising given the scales' content. What may be surprising to many, however, is their relatively modest size. Thus, Tradition and Inclusiveness cannot be equated with conservatism and liberalness, respectively. After all, they are *positively* related to each other (see Table 6), so conceptualizing them as opposite ends of a continuum is inappropriate. Given their mutual correlations with the motivation for positive social relationships (see Studies 4-5), they are better conceptualized as two forms of affiliative motivation. Furthermore, Tradition was also more strongly correlated with Religiosity across studies (average  $r$  = .51), indicating that religiosity is more central to this construct than political conservatism.

Beyond this, females were modestly lower in Prominence motivation than males (average  $r$  = -.10) (all other average gender  $|r|$ s < .10). This is consistent with past research (e.g., Schwartz & Rubel, 2005), and could be due to evolved sex differences (e.g., Buss & Kenrick, 1998) and/or encultured gender roles (e.g., Wood & Eagly, 2002). Finally, more advanced age was modestly correlated with lower Prominence motivation (average  $r$  for all studies = -.12; for MTurk studies only = -.16) and greater Tradition motivation (average  $r$  for all studies = .11; for MTurk studies only = .16) (all other average age  $|r|$ s < .10). Consistent with the literature on mean-level changes in personality (Roberts, Walton, & Viechtbauer, 2006) and goals/values (Roberts et al., 2004; Vecchione et al., 2016), these effects are modest. Given their cross-sectional nature, there are also a number of possible explanations. Nonetheless, this suggests that mean-level changes in the PINT-Goals represent an important avenue for future research.

## **General Discussion**

### **Broad Summary of Findings**

What do people want? Few questions in psychological science are as important as this; yet existing taxonomies disagree on both the number and content of goals proposed (see Table 1). This resembles the state of personality trait research in roughly the 1970s and 1980's (Goldberg, 1993; John et al., 2008). Accordingly, we applied the same solution that led to a more consensual taxonomy in the trait literature – the lexical approach. To do so, goal-relevant nouns were first combed from a large psycholinguistic database. In Studies 1-2, participants rated their commitment to these goals, and principal component analyses were conducted to identify broad, replicable factors. Four components replicated across datasets, which we labeled Prominence, Inclusiveness, Negativity prevention, and Tradition (the PINT taxonomy). In Studies 3-7, we constructed a brief measure of these goals, validated its factor structure, and began to explore the surrounding nomological net. Considerably more research remains to be done. Nonetheless, the derivation of the PINT Taxonomy opens up a wide range of exciting possibilities for research.

### **Comparison to Past Goal Taxonomies**

**Broad Patterns:** How does the PINT Taxonomy compare to past taxonomies of goal-content (e.g., Chulef et al., 2001; Locke, 2015; Maslow, 1943; McClelland, 1987; Ryan & Deci, 2017; Schwartz, 2012)? The results of Studies 1-2 indicate that approach/promotion and avoidance/prevention serve as broad organizing themes (Elliot, 2006; Higgins, 1997). A Positivity Promotion and Negativity Prevention factor consistently emerged in the two-component solution of both studies. The Negativity Prevention factor was surprisingly coherent, and consistently maintained even in the ten-component solution.

Beyond this, past goal taxonomies typically contain goals for high social rank (e.g., agency, power, achievement) and positive social relationships (e.g., communion, affiliation, intimacy). The emergence of the Prominence factor continues to support the importance of goals

for social rank. Interestingly, though, analyses did not yield a single goal for positive social relationships. Instead, Inclusiveness and Tradition emerged as two separate factors. We suggest that Tradition reflects a more ‘conventional’ form of affiliative motivation; while Inclusiveness reflects a more ‘innovative’ form of affiliative motivation. Thus, these factors subsume a final theme emphasized in many past taxonomies -- Innovation vs. Convention (see Table 1).

Consistent with this, Inclusiveness and Tradition both exhibited correlations with various forms of affiliative motivation (e.g., Communal goals, Benevolence values, Kin-Care, Group-Affiliation, Intrinsic Aspirations) and related constructs (e.g., Agreeableness, Attachment-Avoidance, Relatedness Need Satisfaction). However, Inclusiveness was more strongly related to innovation-related constructs (e.g., Self-Direction values, Openness/Intellect, liberal political ideology); while Tradition was more strongly related to convention-related constructs (e.g., Conformity values, Conscientiousness, religiosity, conservative political ideology).

**Tradition and Inclusiveness:** Beyond broad patterns, the specific form that each construct took is notable. Interestingly, the distinction between two forms of affiliative motivation was anticipated by only one prior taxonomy – Schwartz’s (2012) value theory. This theory distinguishes between the four higher-order values of Conservation, Self-Transcendence, Openness to Change, and Self-Enhancement. Tradition converged clearly with the Conservation values (especially Tradition); while Inclusiveness converged clearly with the Self-Transcendence values (especially Universalism). Beyond the taxonomies summarized in Table 1, an arguably similar distinction is made in many two-dimensional models of political ideology and morality (e.g., Duckitt & Sibley, 2009; Janoff-Bulman & Carnes, 2013). Thus, political ideology seems to be a critical component of people’s higher-order goals and values.

**Prominence:** Although a goal for high social rank has been consistently emphasized in all past taxonomies, its conceptualization varies considerably. For example, Schwartz (2012) claimed that power and achievement are both avoidant, anxiety-based values. By contrast, others have linked these goals to approach motivation (e.g., Corr et al., 2013; DeYoung, 2015; Keltner, Gruenfeld, & Anderson, 2003). Our studies clearly support the latter proposal, as Prominence formed the core of a higher-order Positivity Promotion factor in Studies 1-2, and it was consistently associated with BAS, positive affect, and extraversion in Study 4-7.

Perhaps more importantly, past theories and scales emphasize different content – focusing on achievement, power, wealth, aggressive dominance, success at autonomously-chosen activities, or success at socially-valued activities. Thus, the exact form that Prominence took is notable. Its content is relatively diverse, ranging from ‘power’ and ‘moneymaking’ to ‘perfection’ and ‘glory’. Thus, it is tempting to equate it with the broad construct of agentic motivation (Locke, 2015). However, Studies 4-6 indicate that Prominence has a more achievement-oriented and communal profile than agency (e.g., stronger correlations with Achievement values, Communal/Agentic motives, Intellect). Furthermore, there was no suggestion of a link with aggressive dominance (e.g., it was not related to low agreeableness, anger, or negative social relationships).

As such, we propose that Prominence most strongly reflects the pursuit of social status (Anderson et al., 2015) and prestige (Henrich & Gil-White, 2001). In other words, it reflects a goal to earn the respect, admiration, and voluntary deference of others through one’s achievements. In this way, it is very different from scales emphasizing aggressive dominance (Cheng, Tracy, & Henrich, 2010). We propose that this emphasis explains its relationship with positive affect and well-being; and makes it critically different from the construct of extrinsic

aspirations (Ryan & Deci, 2017). This emphasis also helps to explain Prominence's positive correlation with the remaining PINT scales (see Table 6). Like the other PINT-Goals, Prominence shares an emphasis on maintaining positive relationships with other people.

Future research should investigate the location of more aggressive forms of dominance-seeking within the structure of goal-content. Preliminary analyses of Studies 1-2 suggest that items indicative of such a construct (e.g., authoritarianism; elitism) may represent a blend of low Inclusiveness and Negativity. It may be that this form of antagonistic status-seeking is linked to thwarting of the proposed psychological needs and lower well-being; while Prominence is related to greater positive affect and satisfaction of these needs.

**Negativity Prevention:** Perhaps most surprising was the fact that Negativity Prevention did not converge with past measures of avoidance motivation in Study 4-5 (e.g., BIS, Performance-Avoidance goals, Social-Avoidance goals, FFFS). This, as well as the analyses of the ipsatized scores, led us to consider the possibility that Negativity Prevention represents nothing more than a response bias (e.g., a general tendency to report commitment to socially-valued goals). However, we also considered it possible that Negativity Prevention represents a construct that is not represented in past goal taxonomies. Study 6-7 supported the latter perspective. Much to our surprise, there were indications that Negativity Prevention may lead to the *successful* prevention of negative events. For example, it was correlated with Prevention Pride, low Negative Affect, low Attachment-Insecurity, and less dissatisfaction with Relatedness and Competence Needs. Clearly, more research is needed before causal claims can be made, but this pattern suggests Negativity Prevention may be successful. This stands in stark contrast to the typical finding that BIS and avoidance motivation are linked to greater negative affect and ineffective goal-achievement (Elliot, 2006; Gable & Impett, 2012).

Beyond this, more psychometric research is needed to better understand the difference between Negativity Prevention and past measures of avoidance motivation. What is it about these scales that leads them to diverge despite seemingly similar content? One possibility could lie in the emphasis on the *commitment to expend effort* (i.e., in our response scale). This feature is continually emphasized in most every definition of goals we reviewed (including Elliot's, 2006, definition of avoidance goals); and thus we believe it is quite appropriate and legitimate.

Nonetheless, this emphasis could provide an explanation for Negativity Prevention's divergence from other avoidance scales. Although avoidance motivation is generally thought to be ineffective, research suggests that the allocation of *focused attention* can render it successful (see Roskes, Elliot, & De Dreu, 2014). The convergence of Negativity Prevention with Conscientiousness, Industriousness, and Intellect suggests that it involves focused attention.

Furthermore, a close inspection of past avoidance measures indicates they do not directly ask about effort-commitment. Scales measuring BIS and the Fight-Flight-Freeze System (Carver & White, 1994; Corr & Cooper, 2016) instead inquire about a tendency to respond to aversive events with anxiety, fear, and distress. As such, they are perhaps more properly considered measures of affect than goal-content. Additionally, past avoidance measure typically ask what a person is "trying" to do (e.g., "I am trying to make sure that nothing bad happens to my close relationships"; Elliot et al., 2006). "A strong commitment" may clearly indicate the allocation of focused attention; while "trying" may not. Finally, the instructions for the PINT-Goals scales also quite explicitly indicate that commitment involves effort-allocation, and that it can be different from simply disliking something. This may serve to further emphasize the allocation of focused attention.

### **Need for Further Psychometric Work on Goal-Structure**

Having summarized the most global aspects of our findings, it is next important to emphasize that a great deal of psychometric research remains to be done. The Big Five traits were not definitively established in one paper, and it is unreasonable to expect the PINT Taxonomy to be either. We emphasize five lines of psychometric work that we see as especially important.

**Cross-Cultural Research:** Above all else, research on the structure of goal-content in other languages and cultures is needed. Currently, we can only say that the PINT Taxonomy appears to summarize the broadest dimensions of goal-content in the *English language* as used within *American culture*. However, we speculate that the PINT goals will generalize to at least many other industrialized cultures. Certainly, the appropriateness of specific items will vary across cultures. For example, “church” would not serve as a good marker of Tradition in non-Christian cultures; and “fatness” would not serve as a good marker of Negativity Prevention in cultures where starvation is a larger concern than obesity. Nonetheless, we suggest that the deeper concepts underlying these four constructs are relevant to the human condition more generally – at least as experienced in large, industrialized cultures.

**Other Item Pools:** It will be important to examine the structure of goal-content using other item pools (even in American English). For example, some may quibble with our decision to focus on nouns. It would also be useful to investigate large pools of less ambiguous, sentence-length items (Goldberg & Kilkowski, 1995).

**Optimal Markers of the PINT Dimensions:** In creating the PINT Goal-Contents scale, we selected 43 words out of hundreds of candidate items. We believe these 43 items represent a reasonable first step toward identifying optimal markers of these dimensions, as we used multiple conceptual and quantitative criteria to develop succinct but reliable and valid scales.

Nonetheless, even after decades of research, trait psychologists continue their efforts to refine item selection so as to best measure the Big Five dimensions (e.g., Soto & John, 2016).

Certainly, then, there is need for further work in the goal-content domain too. It is possible that our subjective interpretations biased item selection in an unintended fashion. The selection of other (possibly more valid) items could alter correlations with external constructs. Automated item selection procedures (e.g., ant colony optimization; see Leite, Huang, & Marcoulides, 2008) could be useful in this regard, as they could remove biases unintentionally introduced by subjective human judgment.

**More Specific Factors:** We suggested that goal-content is hierarchically structured, such that it can be usefully described at various levels of abstraction. Consistent with this, Studies 1-2 indicated that, at a very abstract level, goal-content can be usefully described in terms of Positivity Promotion and Negativity Prevention. Thus, two content-neutral ‘types’ of goals help to organize goal-content at a very superordinate level. We suggest that the PINT Taxonomy represents a level of abstraction roughly parallel to the Big Five. Just as this level was most useful to trait researchers in the 1990’s, we expect that the PINT Taxonomy will be most useful now. It begins to specify the most important content of people’s goals in a way that goes beyond simple valence (i.e., positive vs. negative).

As research proceeds, though, it will undoubtedly become useful to explore more specific constructs. For example, past goal taxonomies have distinguished between Achievement and Power (e.g., McClelland, 1987); suggested that Intimacy may reflect a unique form of communal motivation (e.g., McAdams, 2012); or posited ‘blends’ of two or more goals represented in the PINT (e.g., Self-Direction as a blend of Achievement and Universalism values; Benevolence as a blend of Universalism and Tradition values; Schwartz, 2012). Studies of the more fine-grained

structure of goal-content will undoubtedly yield many constructs of this type. Indeed, Studies 1-2 already allude to such possibilities. We suggest that the application of circumplex models (Gurtman & Pincus, 2003) will be particularly useful in this regard. Such models have been applied within past goal-taxonomies (e.g., Grouzet et al., 2015; Locke, 2000; Schwartz et al., 2001), and they can be used to identify lower-order facets that represent a blend (i.e., rotation between) two higher-order facets (Hofstee et al., 1992). They could help to identify different forms of prevention motivation, for example, directed at preventing different forms of undesirable goal-content.

**Links to Mid-Level Goal Constructs:** Like previous goal taxonomies, the PINT Taxonomy focuses on higher-order goal-content (i.e., values, motives, aspirations). We suggested that could provide an organizing framework for lower-order goals as well. Future research should examine if this is the case. Mid-level goal constructs are typically researched by asking participants to first *idiographically* identify their goals (i.e., briefly describe them in their own words) and then answer a series of *nomographic* questions about them (Cantor et al., 1986; Emmons, 1986; Little, 2015). The PINT Goal-Contents Scale could easily be adapted to this latter purpose. Consider the following goals identified by participants in a previous study of ours (Wilkowski & Ferguson, 2016): “Become Vice President of my fraternity chapter”, “become a starter in Water Polo”, “Become closer to God”, and “Raise a family”. None of these participants used words like ‘glory’, ‘championship’, ‘blessedness’, or ‘parenthood’ in their descriptions (perhaps because they are too abstract to describe their more concrete goals). When asked, though, we suspect these participants would characterize the 1<sup>st</sup> two goals in terms of ‘glory’ and ‘championship’; while they would characterize the latter two goals in terms of ‘blessedness’ and

‘parenthood’. Future research should examine if this is the case and if such measures meaningfully predict goal-relevant processes and outcomes.

### **Implications of the PINT Taxonomy for Understanding Human Motivation**

Having acknowledged the need for further psychometric research, we next address what the PINT Taxonomy begins to tell about the broadest aspects of human motivation. First, these findings suggest that the highest-order goals are best understood as *values*. Schwartz (2012) defined values (in part) as guiding principles that transcend specific circumstances and guide behavior in many spheres of life. Values are often thought to occupy the most superordinate level of goal hierarchies, such that other goals are subordinate and act in service of values (e.g., Powers, 2005). We did not specifically set out to create a values taxonomy. Instead, we broadly included many goals – even some fairly specific ones (e.g., skincare, intoxication). Nonetheless, four ‘guiding principles’ emerged from this analysis.

Beyond this, these findings suggest that broadest aspects of human motivation are overwhelmingly social in nature. Many past theorists have commented on the ultra-sociality of human beings (e.g., Burkart et al., 2014; Hare, 2017; Moll & Tomasello, 2007) or emphasized our ‘need to belong’ (Baumeister & Leary, 1995). However, the ‘need to belong’ was in a sense everywhere in the PINT Taxonomy and thus nowhere specifically. Prominence appears to reflect a desire to be admired by others. Negativity prevention is focused on the avoidance of many forms of social discord (e.g., fighting, unemployment, isolation). Tradition reflects a goal to adhere to the long-standing institutions of one’s cultural in-group (e.g., church, nation, family). Inclusiveness reflects a desire for positive social relationships with all people – including outgroup members. Thus, the PINT-Goals are overwhelmingly focused on *other people*.

### **The Causes, Consequences, and Evolved Functions of the PINT-Goals**

The PINT Taxonomy is meant purely as a *descriptive model*, not a *theoretical explanation*. It was derived using a theory-neutral, bottom-up, empirical methodology. We hope that this will help it to gain widespread acceptance, as the results cannot be easily attributed to our theoretical preferences or biases. Nonetheless, the adoption of a theory-neutral approach should not be mistaken for an *opposition* to theorizing. If the PINT Taxonomy gains acceptance, the next step will be to develop an adequate theoretical explanation of it.

In this connection, Study 6-7 provide some interesting food for thought. For example, some (e.g., Kasser & Ryan, 1996) have suggested that the pursuit of certain goals impacts a person's subjective well-being. In Study 6-7, we found that Prominence, Negativity prevention, and Tradition were related to greater positive affect, less negative affect, and greater life satisfaction, respectively. Future studies are needed to determine if goal-pursuit truly causes a change in well-being, or if other explanations are needed. For example, it is also possible that being satisfied with the current state of society causes one to pursue Tradition goals (i.e., affect may cause goal-adoption).

Likewise, future studies are needed to clarify the relationships between the PINT-Goals and the Big Five traits. Some theorists suggest that that the Big Five traits are biologically-determined 'basic tendencies' which drive the selection of goals within a person's life circumstances (Costa & McCrae, 1994). By contrast, others suggest that the pursuit of a goal at a given moment in time can alter a person's behavior and 'personality states' at the same moment (McCabe & Fleeson, 2016). If sustained, it has been suggested that this can lead to long-term changes in one's personality (Roberts et al., 2004). Thus, the pursuit of Tradition goals at any given moment in time may elicit agreeable and conscientious behavior; while the pursuit of Inclusiveness goals may elicit agreeable and open-minded behavior. Over time, the long-term

pursuit of these goals should slowly alter one's personality in similar directions. We look forward to many exciting avenues of research along these lines.

More globally, though, a true theoretical explanation of the PINT-Goals will have to specify the evolutionary *function* which the PINT-Goals serve. Our desire to keep this paper to a manageable length prohibits a full exposition of our thoughts on this issue. Nonetheless, we suspect that the PINT-Goals may reflect different aspects of humans' evolved, ultra-social nature (see Boyd, Richerson, & Henrich, 2011; Kesebir, 2012; Moll & Tomasello, 2007; Wilson, van Vugt, & O'Gorman, 2008). Human social groups have clearly achieved a high level of coordination. Some even suggest that human societies are best described as 'super-organisms' – as if individual humans are cells within a larger and coherently-functioning organism. We suggest that the PINT-Goals may have played critical roles in achieving this integration. Negativity prevention may serve to reduce conflicts of interest between different members of a social group. Tradition may help to integrate the actions of group members, specifically by encouraging adherence to a culturally-learned system of beliefs and norms (Boyd et al., 2011; Norenzayan et al., 2016). Prominence may play a role in the transmission of culture across generations, as learners voluntarily give their respect and deference to skilled individuals in exchange for the opportunity to learn from them (Henrich & Gil-White, 2001; van Vugt, Hogan, & Kaiser, 2008). Finally, Inclusiveness goals likely promote the equal distribution of resources (Boehm, 1999; van Vugt et al., 2008), peaceful intergroup relationships (Fry, 2012), and/or social innovations and improvement (Tennie, Call, & Tomasello, 2009). We hope to provide an expanded treatment of this account in a forthcoming publication. Nonetheless, even this brief exposition illustrates how the four PINT-Goals can help to coordinate the actions of members of human social groups.

## Conclusion

While there has been a great deal of speculation about what people want, no taxonomy of goal-content has gained widespread acceptance. This is comparable to the state that personal trait researchers once found themselves in, so we adopted the solution that gave rise to a more consensual taxonomy in that domain – namely, the lexical approach. We gleaned a large array of goal-relevant nouns from the natural English lexicon and asked two large samples to indicate their commitment to these goals. The result is the PINT taxonomy of goals. It suggests that the structure of goal-content can be broadly summarized in terms of Prominence, Inclusiveness, Negativity prevention, and Tradition. A great deal of research needs to be done to further validate this taxonomy and understand the nature of these goals. Nonetheless, the derivation of the PINT-Goals opens up numerous fascinating avenue for future research.

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Table 1. An Attempt to Organize Past Goal Taxonomies

	Pain and Pleasure	Positive Social Relationships	Avoidant	High Social Standing	Change vs. Conservation						
	Pain- Minimization	Pleasure- Maximization	Affiliation	Intimacy	Altruism	Social	Power	Achievement	Failure- Avoidance	Innovation	Convention
Interpersonal Circumplex (e.g., Locke, 2015)			Communion				Agency			Self- Actualization	
Maslow's (1943) Hierarchy of Needs	Safety		love				Esteem	Achievement; Hope for Success	Fear of Failure		
Implicit (and Explicit) Motives (McClelland, 1987; Schuttheiss, 2008)			Affiliation	Intimacy			Power		Performance- Avoidance		
Approach vs. Avoidance Goals (Elliot, 2006)			Social- Approach				Performance- Approach	Mastery	Performance- Avoidance		
Evolutionary Theories (Kenrick et al., 2010; cf. Bernard et al., 2005)	Self-Protection	Mate Acquisition	Affiliation	Mate Retention	Kin-Care	Exclusion Concern	Status				Coalition Formation, Mimetic
Schwartz's (2012) Value Theory	Security	Hedonism Stimulation	Benevolence		Universalism		Power	Achievement		Self-Direction	Tradition
Goal Contents Theory (e.g., Grouzet et al., 2005; Ryan & Deci, 2017)	Physical Health Safety	Hedonism	Affiliation		Community Contribution		Popularity			Personal Growth	Conformity
							Image Financial Success			Self- Acceptance	Spirituality
Murray's (1938) Manifest Needs	Harm- Avoidance	Play	Affiliation		Nurturance		Dominance	Achievement	Infavoidance	Autonomy	Defence
		Sex	Succorance				Aggression	Understanding	Counteraction	Order	
		Sentience					Rejection		Defendance	Abasement	
		Exhibition									
Wicker et al. (1986)	Strenuous Life		Interpersonal Concern				Competitive Ambition Economic Status	Balanced Success		Exploration/ Play	
Novacek & Lazarus (1990)	Stress Avoidance	Sensation Seeking Personal Happiness	Affiliation		Altruism		Power/ Achievement			Personal Growth	
Richards (1966)					Altruism		Prestige	Scientific Goals Athletic Success		Artistic Goals Humanistic/ Cultural	Religious Goals
Chulief et al. (2001)	Physical Health Stability & Safety	Psychological Well-Being	Social Recognition and Approval	Sex and Romance	Social Awareness	Defense vs. Rejection	Leadership	Career		Aesthetics (Art)	Religion
		Entertainment	Friendship Receiving from Others	Marriage Family	Positive Social Qualities Ethics and Idealism		Physical Appearance	Finances		Flexibility, Openness, & Excitement	
					Teaching & Helping Others			Intellect and Education		Personal Growth	
								Achievement Self-Sufficiency		Creativity Freedom	

*Table 2. Summary of Demographic Information for All Studies*

<b>Study</b>	<b>Source</b>	<b>n</b>	<b>Females</b>	<b>Males</b>	<b>M Age (Range)</b>	<b>% White</b>	<b>% Hispanic</b>	<b>% Black</b>	<b>% Asian</b>
Study 1	Student*	504	373	129	21.8 (18-68)	56.0%	34.1%	1.0%	4.8%
Study 2	MTurk	522	286	233	36.8 (18-76)	74.7%	5.0%	8.2%	7.9%
Study 3	MTurk	420	289	126	38.4 (19-82)	72.9%	5.0%	10.2%	7.6%
Study 4	Student	204	145	59	20.8 (18-47)	6.8%	88.7%	2.0%	0.5%
Study 5	MTurk	258	120	138	36.8 (18-80)	72.1%	5.0%	12.4%	7.0%
Study 6 (T1)	MTurk	246	132	112	36.0 (18-68)	71.1%	6.1%	12.0%	8.1%
Study 6 (T2)	MTurk	121	64	56	37.8 (18-68)	70.0%	7.5%	7.5%	10.8%
Study 7 (T1)	Student	269	192	76	19.7 (17-38)	87.7%	3.7%	2.6%	3.0%
Study 7 (T2)	Student	184	131	52	19.7 (17-33)	87.5%	2.7%	2.7%	3.2%

Note: Categories that routinely represent <1% of samples (e.g., gender nonconforming; Native American; Pacific Islander) are not reported. “White” refers to non-Hispanic White/Caucasian.

\*Study 1 also contained 49 non-student affiliates of a college.

*Table 3. Example Loadings from the 4-Component Solution of Study 1.*

	<b>Prominence</b>	<b>Inclusiveness</b>	<b>Negativity- Prevention</b>	<b>Tradition</b>
power	<b>.85</b>	-.15	-.12	-.25
wealth	<b>.75</b>	-.14	.08	-.20
winning	<b>.72</b>	-.20	.10	-.15
greatness	<b>.68</b>	-.10	.17	-.03
sexiness	<b>.64</b>	-.07	-.04	-.24
interconnectedness	.00	<b>.64</b>	-.05	-.04
altruism	-.14	<b>.62</b>	-.15	-.02
tolerance	-.03	<b>.61</b>	.08	-.03
distinctiveness	.05	<b>.57</b>	-.04	-.11
democracy	.09	<b>.54</b>	-.12	-.04
aggravation	.01	.00	<b>-.70</b>	-.07
rejection	-.18	.03	<b>-.68</b>	.08
stupidity	-.13	-.04	<b>-.64</b>	.08
disease	-.15	.01	<b>-.62</b>	-.02
conflict	-.10	.07	<b>-.61</b>	-.14
church	-.14	-.26	-.06	<b>.85</b>
holiness	-.02	-.11	-.04	<b>.70</b>
obedience	.12	-.26	.01	<b>.63</b>
parenthood	-.03	.05	-.15	<b>.53</b>
patriotism	.19	-.07	-.10	<b>.41</b>

Note:  $N = 504$ ; Loadings were derived using principal component analysis and promax rotation.

Table 4. Example Loadings (from Study 2) and Congruence Coefficients (between Study 1-2) for the 4-Component Solution.

	Prominence	Inclusiveness	Negativity- Prevention	Tradition
wealth	<b>.81</b>	-.24	-.01	-.12
power	<b>.75</b>	-.25	-.12	.00
winning	<b>.68</b>	-.03	.08	-.08
success	<b>.59</b>	.17	.03	-.07
popularity	<b>.58</b>	-.04	-.15	.08
empathy	-.14	<b>.81</b>	-.04	.03
diversity	-.07	<b>.67</b>	-.01	-.09
philanthropy	-.21	<b>.66</b>	-.12	.04
friendship	.17	<b>.63</b>	-.03	.04
goodwill	.03	<b>.60</b>	.18	.16
harassment	.01	.02	<b>-.82</b>	.16
ugliness	-.20	.13	<b>-.80</b>	.05
aggravation	-.02	.00	<b>-.80</b>	.05
distress	.07	-.06	<b>-.77</b>	.05
damnation	.02	.04	<b>-.76</b>	-.14
religion	-.17	.18	-.15	<b>.75</b>
conservatism	-.04	-.04	-.02	<b>.55</b>
tradition	.00	.21	.09	<b>.51</b>
pureness	.10	.11	.15	<b>.51</b>
Americanism	.20	.02	.04	<b>.47</b>

*Congruence Coefficients:*

<i>S1 Target-Rotated</i>	.89	.91	.97	.86
<i>S2 Target-Rotated</i>	.94	.84	.96	.87
<i>Mean</i>	.92	.88	.97	.87

Note:  $N = 522$ ; Loadings were derived using principal component analysis and promax rotation. S1 = Study 1; S2 = Study 2.

Table 5. Internal Consistencies and AICs

<b>Study</b>	<b>Prominence</b>	<b>Inclusiveness</b>	<b>Negativity Prevention</b>	<b>Tradition</b>
<i>Alphas:</i>				
Study 1	.82	.80	.78	.80
Study 2*	.80	.80	.84	.79
Study 3	.85	.81	.81	.77
Study 4	.84	.81	.76	.80
Study 5	.85	.84	.82	.79
Study 6 (T1)	.83	.83	.86	.75
Study 6 (T2)	.77	.76	.77	.81
Study 7 (T1)	.78	.71	.74	.77
Study 7 (T2)	.79	.72	.77	.82
<i>Average +</i>	.82	.80	.80	.78
<i>Average Inter-item Correlations (AIC):</i>				
Study 1	.30	.27	.24	.28
Study 2*	.26	.30	.32	.32
Study 3	.35	.28	.27	.25
Study 4	.32	.27	.22	.29
Study 5	.33	.32	.30	.28
Study 6 (T1)	.30	.31	.37	.24
Study 6 (T2)	.23	.23	.24	.30
Study 7 (T1)	.24	.18	.20	.25
Study 7 (T2)	.26	.19	.23	.31
<i>Average +</i>	.30	.28	.27	.27
<i>Correlation with Full Component:</i>				
Study 1	.91	.90	.87	.96
Study 2*	.88	.89	.93	.97
<i>Average</i>	.90	.90	.90	.97

\*Study 2 values were calculated omitting 4 items included on the final PINT Goal-Contents Scale but not administered in that study. +Averages were calculated using time 1 scores from Study 6-7 only.

*Table 6. Inter-Scale Correlations for the PINT Scale*

<i>Inter-Scale Correlations:</i>						
	<b>P-I</b>	<b>P-N</b>	<b>P-T</b>	<b>I-N</b>	<b>I-T</b>	<b>N-T</b>
Study 1	.28	.38	.37	.44	.22	.35
Study 2	.34	.39	.33	.55	.32	.37
Study 3	.28	.08	.32	.18	.12	.19
Study 4	.39	.08	.47	.07	.47	.01
Study 5	.33	.04	.37	.25	.12	.11
Study 6 (T1)	.42	.04	.37	.06	.32	.05
Study 6 (T2)	.27	.35	.27	.30	.16	.29
Study 7 (T1)	.09	.23	.38	.25	.13	.21
Study 7 (T2)	.23	.29	.35	.31	.35	.32
<i>Average +</i>	<i>.30</i>	<i>.18</i>	<i>.37</i>	<i>.26</i>	<i>.24</i>	<i>.18</i>

Note: P = Prominence, I = Inclusiveness, N = Negativity prevention, T = Tradition. +Averages were calculated using time 1 scores from Study 6-7 only.

*Table 7. Means (and Standard Deviations) for the PINT Scale*

	<b>P</b>	<b>I</b>	<b>N</b>	<b>T</b>
Study 1	0.92 (0.89)	1.06 (0.91)	1.35 (0.97)	0.97 (1.04)
Study 2	0.60 (0.88)	0.78 (1.00)	1.44 (1.13)	0.70 (1.22)
Study 3	0.75 (1.01)	0.91 (0.96)	1.52 (1.14)	0.90 (1.17)
Study 4	1.15 (1.08)	1.02 (1.00)	1.07 (1.09)	1.11 (1.20)
Study 5	0.67 (1.06)	1.11 (1.05)	1.67 (1.19)	0.60 (1.28)
Study 6 (T1)	0.74 (1.04)	0.87 (1.07)	1.42 (1.33)	0.85 (1.13)
Study 6 (T2)	0.64 (0.78)	0.77 (0.81)	1.57 (1.00)	0.81 (1.17)
Study 7 (T1)	1.16 (0.80)	1.10 (0.76)	1.42 (0.90)	1.14 (1.06)
Study 7 (T2)	1.05 (0.77)	1.11 (0.72)	1.35 (0.89)	1.08 (1.09)

Note: P = Prominence, I = Inclusiveness, N = Negativity Prevention, T = Tradition. The response scale ranged from -4 (I have an extremely strong commitment to avoiding this) to +4 (I have an extremely strong commitment to this).

*Table 8. Exploratory Structural Equation Modeling Results, Study 3.*

<b>Item</b>	<b>Prominence</b>	<b>Inclusiveness</b>	<b>Negativity Prevention</b>	<b>Tradition</b>	<b>Residual Variance</b>
Championship	<b>.62</b>	.14	-.07	.00	.55
Competition	<b>.51</b>	-.04	-.11	.00	.74
Control	<b>.50</b>	.10	.04	-.06	.73
Glory	<b>.63</b>	-.08	.05	.17	.55
Greatness	<b>.62</b>	.08	.23	.01	.52
Moneymaking	<b>.50</b>	.02	.35	.06	.61
Power	<b>.73</b>	.05	-.01	-.11	.47
Perfection	<b>.56</b>	-.03	.07	.13	.63
Popularity	<b>.42</b>	.05	-.14	.05	.78
Privilege	<b>.49</b>	-.16	-.02	.14	.73
Sexiness	<b>.39</b>	.16	-.02	.08	.77
Activism	.07	<b>.52</b>	-.17	.00	.72
Comradery	.05	<b>.55</b>	.12	.05	.63
Diversity	-.01	<b>.56</b>	.03	-.02	.69
Diplomacy	.07	<b>.49</b>	.01	.13	.70
Empathy	-.24	<b>.47</b>	.21	.16	.67
Equity	.18	<b>.46</b>	.13	-.05	.68
Inclusion	-.02	<b>.59</b>	.01	-.15	.65
Interconnectedness	-.05	<b>.63</b>	.00	.02	.62
Philanthropy	.01	<b>.60</b>	-.03	-.07	.65
Solidarity	.03	<b>.44</b>	-.19	.04	.79
Transcendence	.11	<b>.45</b>	-.08	-.01	.77
Abnormality	.05	.13	<b>-.47</b>	-.17	.72
Craziness	.00	.04	<b>-.51</b>	-.01	.75
Death	-.11	.01	<b>-.51</b>	.07	.74
Fighting	.17	.00	<b>-.55</b>	-.06	.65
Fatness	-.11	.08	<b>-.60</b>	.05	.66
Hypersensitivity	.05	-.01	<b>-.51</b>	.04	.74
Isolation	.01	-.08	<b>-.59</b>	-.09	.60
Mediocrity	-.12	-.04	<b>-.57</b>	.11	.68
Melancholy	.20	-.17	<b>-.47</b>	-.02	.69
Pity	-.11	.00	<b>-.41</b>	.04	.83
Unemployment	-.09	-.02	<b>-.57</b>	-.04	.65
Atheism	.06	.22	-.16	<b>-.55</b>	.63
Blessedness	-.01	.24	.05	<b>.63</b>	.51
Conservativism	.13	-.16	-.15	<b>.45</b>	.75
Marriage	-.03	.09	.08	<b>.37</b>	.84
Patriotism	.15	.01	-.02	<b>.40</b>	.79

Pureness	.12	.05	.05	<b>.51</b>	.68
Tradition	.08	.05	-.05	<b>.60</b>	.61
Obedience	.05	-.08	-.03	<b>.57</b>	.67
Obligation	.13	.12	.02	<b>.42</b>	.75
Parenthood	-.10	.10	-.07	<b>.42</b>	.83
<hr/>					
<i>Latent Factor Correlations:</i>					
<b>Inclusiveness</b>	.25	-			
<b>Negativity</b>					
<b>Prevention</b>	.01	.19	-		
<b>Tradition</b>	.22	.09	.21	-	

Table 9. Hypotheses Examined in Studies 4-5

	Prominence	Inclusiveness	Negativity Prevention	Tradition
<i>Schwartz Portrait Values Inventory</i>	Power	Universalism	Security	Tradition, Conformity
<i>Aspiration Index</i>	Extrinsic (Wealth, Fame, Image)	Intrinsic (Growth, Community, Relationships)	--	Relationships (but not other Intrinsic Aspirations)
<i>CSIV</i>	Agency	Communion	Low Agency Exclusion Concern, Self- Protection, Disease- Avoidance	Communion  Kin-Care (Family), Affiliation (Group)
<i>Fundamental Motives</i>	Status	Affiliation (Group)	BIS	--
<i>BIS/BAS</i>	BAS	--	BIS	--
<i>Achievement Goals</i>	Performance- Approach	Mastery- Approach	Performance- Avoidance	--
<i>Social Goals</i>	--	Social- Approach	Social- Avoidance	Social- Approach

Notes: CSIV = Circumplex Scales of Interpersonal Values. BIS = Behavioral Inhibition System. BAS = Behavioral Approach System.

Table 10. Correlations with the Schwartz and Interpersonal Circumplex Values

	Study 4:				Study 5:			
	P	I	N	T	P	I	N	T
Conservation	.21 <sup>b</sup>	.09 <sup>b</sup>	.01	<b>.43<sup>a</sup></b>	.19 <sup>b</sup>	.02 <sup>b</sup>	.12	<b>.62<sup>a</sup></b>
Self-Transcendence	.11 <sup>b</sup>	<b>.30<sup>a</sup></b>	.02	.14 <sup>b</sup>	-.01 <sup>b</sup>	<b>.49<sup>a</sup></b>	.21	.08 <sup>b</sup>
Openness to Change	.24 <sup>b</sup>	.18 <sup>a</sup>	.07	.04 <sup>b</sup>	.21 <sup>b</sup>	.28 <sup>b</sup>	.15	.04 <sup>b</sup>
Self-Enhancement	<b>.39<sup>a</sup></b>	-.12 <sup>a</sup>	.10	.03 <sup>b</sup>	<b>.57<sup>a</sup></b>	.04 <sup>b</sup>	-.03	.16 <sup>b</sup>
Security	.24	.14 <sup>b</sup>	<b>.15<sup>a</sup></b>	.28 <sup>b</sup>	.21 <sup>b</sup>	.09 <sup>b</sup>	<b>.20<sup>a</sup></b>	.43 <sup>b</sup>
Conformity	.18 <sup>b</sup>	.07 <sup>b</sup>	-.08 <sup>b</sup>	.37	.21 <sup>b</sup>	.03 <sup>b</sup>	.10	.50 <sup>b</sup>
Tradition	.07 <sup>b</sup>	-.01 <sup>b</sup>	-.08 <sup>b</sup>	<b>.43<sup>a</sup></b>	.04 <sup>b</sup>	-.07 <sup>b</sup>	.00 <sup>b</sup>	<b>.60<sup>a</sup></b>
Benevolence	.13 <sup>b</sup>	.23	.07	.14 <sup>b</sup>	.01 <sup>b</sup>	.39	.18	.28 <sup>b</sup>
Universalism	.08 <sup>b</sup>	<b>.30<sup>a</sup></b>	-.01 <sup>b</sup>	.11 <sup>b</sup>	-.02 <sup>b</sup>	<b>.47<sup>a</sup></b>	.19	-.05 <sup>b</sup>
Self-Direction	.17 <sup>b</sup>	.23	.09	.05 <sup>b</sup>	.04 <sup>b</sup>	.27 <sup>b</sup>	<b>.23<sup>u</sup></b>	-.01 <sup>b</sup>
Stimulation	.28	.07 <sup>b</sup>	.04	.02 <sup>b</sup>	.28 <sup>b</sup>	.17 <sup>b</sup>	.01 <sup>b</sup>	.07 <sup>b</sup>
Hedonism	.34	.19	.10	.08 <sup>b</sup>	.33 <sup>b</sup>	.22 <sup>b</sup>	.10	.04 <sup>b</sup>
Achievement	<b>.37<sup>u</sup></b>	-.03 <sup>b</sup>	.12	.07 <sup>b</sup>	<b>.54<sup>u</sup></b>	.06 <sup>b</sup>	.01 <sup>b</sup>	.14 <sup>b</sup>
Power	<b>.35<sup>a</sup></b>	-.19	.07	-.03 <sup>b</sup>	<b>.48<sup>a</sup></b>	.00 <sup>b</sup>	-.08 <sup>b</sup>	.14 <sup>b</sup>
Agentic	<b>.26<sup>a</sup></b>	.11	.08	.10	<b>.32<sup>a</sup></b>	.08 <sup>b</sup>	-.01	.15
Agentic/Communal	<b>.29<sup>u</sup></b>	.22	.11	.16	<b>.34<sup>u</sup></b>	.24 <sup>b</sup>	.16	<b>.24<sup>u</sup></b>
Communal	.19	<b>.22<sup>a</sup></b>	.13	<b>.10</b>	.23	<b>.35<sup>a</sup></b>	.13	<b>.21<sup>a</sup></b>
Submissive/Communal	.10 <sup>b</sup>	.18	.06	.18	.22	.20 <sup>b</sup>	.07	.17
Submissive	.08 <sup>b</sup>	.02 <sup>b</sup>	-.15	.13	.26	.04 <sup>b</sup>	-.07	.18
Separate/Submissive	.05 <sup>b</sup>	-.08 <sup>b</sup>	-.17	.10	.19 <sup>b</sup>	-.06 <sup>b</sup>	-.18	.03 <sup>b</sup>
Separate	.15	-.13 <sup>b</sup>	<b>-.19<sup>u</sup></b>	.08	.16 <sup>b</sup>	-.23 <sup>b</sup>	<b>-.34<sup>u</sup></b>	-.02 <sup>b</sup>
Separate/Agentic	.16	-.18 <sup>b</sup>	-.07	-.06	.28	-.16 <sup>b</sup>	-.32	.02 <sup>b</sup>

Notes: In Study 4,  $|rs| \geq .14$  are significant. In Study 5,  $|rs| \geq .13$  are significant. Hypothesized correlations are bolded. Within each set of correlates grouped together by horizontal lines, superscript “a” indicates the strongest, significant, hypothesized correlate of a PINT goal, and superscript “b” indicates a correlation that is significantly different from the correlation marked “a”. Correlations which unexpectedly exceeded the strongest hypothesized correlation within a set are indicated by u and bold font (though the difference with the hypothesized correlation is not necessarily significant). P = Prominence; I = Inclusiveness, N = Negativity Prevention; T = Tradition.

Table 11. Correlations with the Aspiration Index, Fundamental Motives, and Approach/Avoid

	Study 4:				Study 5:			
	P	I	N	T	P	I	N	T
Intrinsic	.33	<b>.37<sup>a</sup></b>	.11	.30	.24 <sup>b</sup>	<b>.53<sup>a</sup></b>	<b>.28<sup>u</sup></b>	.32
Extrinsic	<b>.42<sup>a</sup></b>	-.08 <sup>b</sup>	.04	.01	<b>.53<sup>a</sup></b>	-.01 <sup>b</sup>	-.16	.10
Personal Growth	.34	<b>.30</b>	<b>.16<sup>u</sup></b>	.20	.25 <sup>b</sup>	<b>.47</b>	<b>.32<sup>u</sup></b>	.21 <sup>b</sup>
Community	.25 <sup>b</sup>	<b>.33</b>	.05	.29	.16 <sup>b</sup>	<b>.52<sup>a</sup></b>	.15	.19 <sup>b</sup>
Relationships	.27 <sup>b</sup>	<b>.33<sup>a</sup></b>	.09	<b>.28<sup>a</sup></b>	.20 <sup>b</sup>	<b>.33<sup>b</sup></b>	.26	<b>.40<sup>a</sup></b>
Image	<b>.33</b>	-.05 <sup>b</sup>	.05	-.02 <sup>b</sup>	<b>.49</b>	.03 <sup>b</sup>	-.14	.18 <sup>b</sup>
Fame	<b>.30<sup>b</sup></b>	-.08 <sup>b</sup>	.02	-.04 <sup>b</sup>	<b>.37<sup>b</sup></b>	-.05 <sup>b</sup>	-.27	.10 <sup>b</sup>
Wealth	<b>.44<sup>a</sup></b>	-.07 <sup>b</sup>	.05	.09 <sup>b</sup>	<b>.49<sup>a</sup></b>	.00 <sup>b</sup>	.00	-.01 <sup>b</sup>
Self-Protection	.15 <sup>b</sup>	.18	<b>.18</b>	.24	.11 <sup>b</sup>	.02 <sup>b</sup>	<b>.11</b>	.11 <sup>b</sup>
Disease-Avoidance	.17 <sup>b</sup>	.02	<b>.28<sup>a</sup></b>	.09	.12 <sup>b</sup>	.00 <sup>b</sup>	<b>.09</b>	.05 <sup>b</sup>
Exclusion Concern	.08 <sup>b</sup>	.03 <sup>b</sup>	<b>-.02<sup>b</sup></b>	.09 <sup>b</sup>	.30 <sup>b</sup>	.05 <sup>b</sup>	<b>-.10</b>	.08 <sup>b</sup>
Group-Affiliation	.26	<b>.19<sup>a</sup></b>	-.08 <sup>b</sup>	<b>.25<sup>a</sup></b>	.33 <sup>b</sup>	<b>.35<sup>a</sup></b>	.22	<b>.39<sup>a</sup></b>
Independence	-.09 <sup>b</sup>	.17	-.03 <sup>b</sup>	.01 <sup>b</sup>	-.09 <sup>b</sup>	.03 <sup>b</sup>	-.04	-.25 <sup>b</sup>
Status	<b>.37<sup>a</sup></b>	.07	.04 <sup>b</sup>	.13	<b>.49<sup>a</sup></b>	.03 <sup>b</sup>	.00	.20 <sup>b</sup>
Mate-Seeking	.14 <sup>b</sup>	.05	-.03 <sup>b</sup>	-.02 <sup>b</sup>	.17 <sup>b</sup>	-.06 <sup>b</sup>	-.19	-.15 <sup>b</sup>
Kin Care	.09 <sup>b</sup>	.31	.12	<b>.24</b>	.13 <sup>b</sup>	.27	.24	<b>.30</b>
BAS	<b>.38<sup>a</sup></b>	.03	.06	.00	<b>.36<sup>a</sup></b>	.21	.09	.10
BIS	.03 <sup>b</sup>	.15	<b>-.02</b>	.20	.02 <sup>b</sup>	.08	<b>.09</b>	-.07
BAS-Drive	.31	-.09	.12	-.02	.35	.04	-.04	.11
BAS-Fun-Seek.	.20	-.04	-.05	-.10	.25	.12	-.08	-.02
BAS-Reward-Resp.	.41	.21	.07	.13	.20	.32	.34	.13
Social-Approach	.23	<b>.34<sup>a</sup></b>	.14	<b>.14<sup>a</sup></b>	.29	<b>.35<sup>a</sup></b>	.26	<b>.31</b>
Social-Avoidance	.21	.23 <sup>b</sup>	<b>.07</b>	.18	.20	.18 <sup>b</sup>	<b>.22</b>	.25
Perf.-Approach	<b>.22<sup>a</sup></b>	.19	.05	.24				
Perf.-Avoidance	.17	.24	<b>.13<sup>a</sup></b>	.23				
Mastery-Approach	.13	.19	.08	.24				
Mastery-Avoidance	.01 <sup>b</sup>	.07	-.01	.13				

Notes: In Study 4,  $|rs| \geq .14$  are significant. In Study 5,  $|rs| \geq .13$  are significant. Hypothesized correlations are bolded. Within each set of correlates grouped together by horizontal lines, superscript “a” indicates the strongest, significant, hypothesized correlate of a PINT goal, and superscript “b” indicates a correlation that is significantly different from a correlation marked “a”. Correlations which unexpectedly exceeded the strongest hypothesized correlation within a

set are indicated by u and bold font (though the difference with the hypothesized correlation is not necessarily significant). P = Prominence; I = Inclusiveness, N = Negativity Prevention; T = Tradition.

Table 12. Hypotheses Examined in Study 6-7.

	<b>Prominence</b>	<b>Inclusiveness</b>	<b>Negativity Prevention</b>	<b>Tradition</b>
<i>Big Five Traits (Aspects)</i>	Extraversion (Assertiveness)	Agreeableness (Compassion)	Neuroticism (Withdrawal or Volatility); or Agreeableness (Politeness)	Conscientiousness (Order) & Agreeableness (Politeness)
<i>Affect (Facets)</i>	Positive Affect (Self-Assuredness)	Low Hostility	Negative Affect [high or low]	Positive Affect (Attentiveness)
<i>SDT Need Satisfaction</i>	Low Autonomy, Relatedness, & Competence	Autonomy, Relatedness	--	Relatedness
<i>Life Satisfaction</i>	Lower or Higher	Higher	--	Higher
<i>Reinforcement Sensitivity</i>	BAS	--	Flight-Fight-Freeze System	--
<i>Regulatory Focus</i>	Promotion Pride	--	Prevention Pride	--
<i>Attachment Style</i>	--	--	Attachment-Anxiety or Avoidance	--

Table 13. Study 6 Results

	<b>P</b>	<b>I</b>	<b>N</b>	<b>T</b>	<i>Retest (1 Mo.)</i>
Extraversion	<b>.35<sup>a</sup></b>	.16	.11 <sup>b</sup>	.24	
Openness/Intellect	.22 <sup>b</sup>	.40	.26	.17 <sup>b</sup>	
Agreeableness	-.04 <sup>b</sup>	<b>.31<sup>a</sup></b>	<b>.34<sup>a</sup></b>	<b>.38<sup>a</sup></b>	
Conscientiousness	.15 <sup>b</sup>	.14 <sup>b</sup>	.26	<b>.34</b>	
Neuroticism	-.08 <sup>b</sup>	-.01 <sup>b</sup>	<b>-.11<sup>b</sup></b>	-.09 <sup>b</sup>	
Enthusiasm (E)	.23 <sup>b</sup>	.16	.13	.27	
Assertiveness (E)	<b>.38<sup>a</sup></b>	.11	.06	.14	
Intellect (O/I)	.26	.34	.23	.12	
Openness (O/I)	.12	.35	.22	.17	
Compassion (A)	.04	<b>.34<sup>a</sup></b>	.27	.39	
Politeness (A)	-.11	.21 <sup>b</sup>	<b>.34<sup>a</sup></b>	<b>.28</b>	
Orderliness (C)	.12	.12	.25	<b>.33<sup>a</sup></b>	
Industriousness (C)	.14	.12	.22	.28	
Volatility (N)	-.06	-.03	<b>-.13</b>	-.08	
Withdrawal (N)	-.10	.00	<b>-.08</b>	-.09	
Sub. Well-Being	.22	.04	.14	.28	.90
Life Satisfaction	.15	-.02	.02	.22	.92
Negative Affect	-.05 <sup>b</sup>	-.07	<b>-.31<sup>a</sup></b>	-.21 <sup>b</sup>	.78
Positive Affect	<b>.38<sup>a</sup></b>	.11	.06 <sup>b</sup>	<b>.26<sup>a</sup></b>	.76
Autonomy-Satisfaction	.27	<b>.09<sup>b</sup></b>	.12 <sup>b</sup>	.16 <sup>b</sup>	
Relatedness Satisfaction	.20 <sup>b</sup>	<b>.24<sup>a</sup></b>	.20 <sup>b</sup>	<b>.29<sup>a</sup></b>	
Competence-Satisfaction	.36 <sup>a</sup>	.20	.13 <sup>b</sup>	.16 <sup>b</sup>	
Autonomy-Thwarting	-.04 <sup>b</sup>	<b>-.05<sup>b</sup></b>	-.17	-.10 <sup>b</sup>	
Relatedness-Thwarting	-.08 <sup>b</sup>	<b>-.07<sup>b</sup></b>	-.26 <sup>a</sup>	<b>-.19<sup>b</sup></b>	
Competence-Thwarting	-.03 <sup>b</sup>	-.08 <sup>b</sup>	-.23	-.09 <sup>b</sup>	
Total Need Satisfaction	<b>.22</b>	<b>.17</b>	.26	<b>.23</b>	
Promotion Pride	<b>.16<sup>a</sup></b>	.13	.20	.19	
Prevention Pride	-.08 <sup>b</sup>	.05	<b>.19<sup>a</sup></b>	.07	
Attachment-Avoidance	-.18	-.23	<b>-.29<sup>a</sup></b>	-.33	
Attachment-Anxiety	.02	.02	<b>-.20</b>	-.09	

BIS	.00 <sup>b</sup>	.07 <sup>b</sup>	<b>-.12</b>	-.08
FFFS	.03 <sup>b</sup>	-.02 <sup>b</sup>	<b>-.08</b>	.16
Reward-Responsiveness	<b>.40<sup>a</sup></b>	<b>.24<sup>a</sup></b>	.13	.21
Goal-Driven Persistence	<b>.31</b>	.17	.16	.22
Reward-Interest	<b>.33</b>	.14	.03	.12
Impulsivity	<b>.21<sup>b</sup></b>	-.01 <sup>b</sup>	-.22	-.04
BAS - Total	<b>.40</b>	.17	.03	.16
<hr/>				
Retest (1 Month)	.67	.75	.38	.78

*Notes:* At Time 1,  $|rs| \geq .13$  are significant. All retest correlations are significant. Within each set of correlates grouped together by horizontal lines, superscript “a” indicates the strongest, significant, hypothesized correlate of a PINT goal, and superscript “b” indicates a correlation that is significantly different from a correlation marked “a”. P = Prominence; I = Inclusiveness, N = Negativity Prevention; T = Tradition.

Table 14. Study 7 Results

	<b>P</b>	<b>I</b>	<b>N</b>	<b>T</b>	<b>Retest (1 Mo.)</b>
Sub. Well-Being	.11	.02	.18	.31	.77
Life Satisfaction	.04	.07	.13	.28	.69
Positive Affect	<b>.30<sup>a</sup></b>	.13	.20 <sup>b</sup>	<b>.38<sup>a</sup></b>	.66
Negative Affect	.06 <sup>b</sup>	.15	<b>-.14<sup>a</sup></b>	-.06 <sup>b</sup>	.68
<i>Retest (1 Mo.)</i>	<i>.70</i>	<i>.61</i>	<i>.63</i>	<i>.84</i>	

Notes: At Time 1,  $|rs| \geq .13$  are significant. All retest correlations are significant. Within each set of correlates grouped together by horizontal lines, superscript “a” indicates the strongest, significant, hypothesized correlate of a PINT goal, and superscript “b” indicates a correlation that is significantly different from a correlation marked “a”. P = Prominence; I = Inclusiveness, N = Negativity Prevention; T = Tradition.

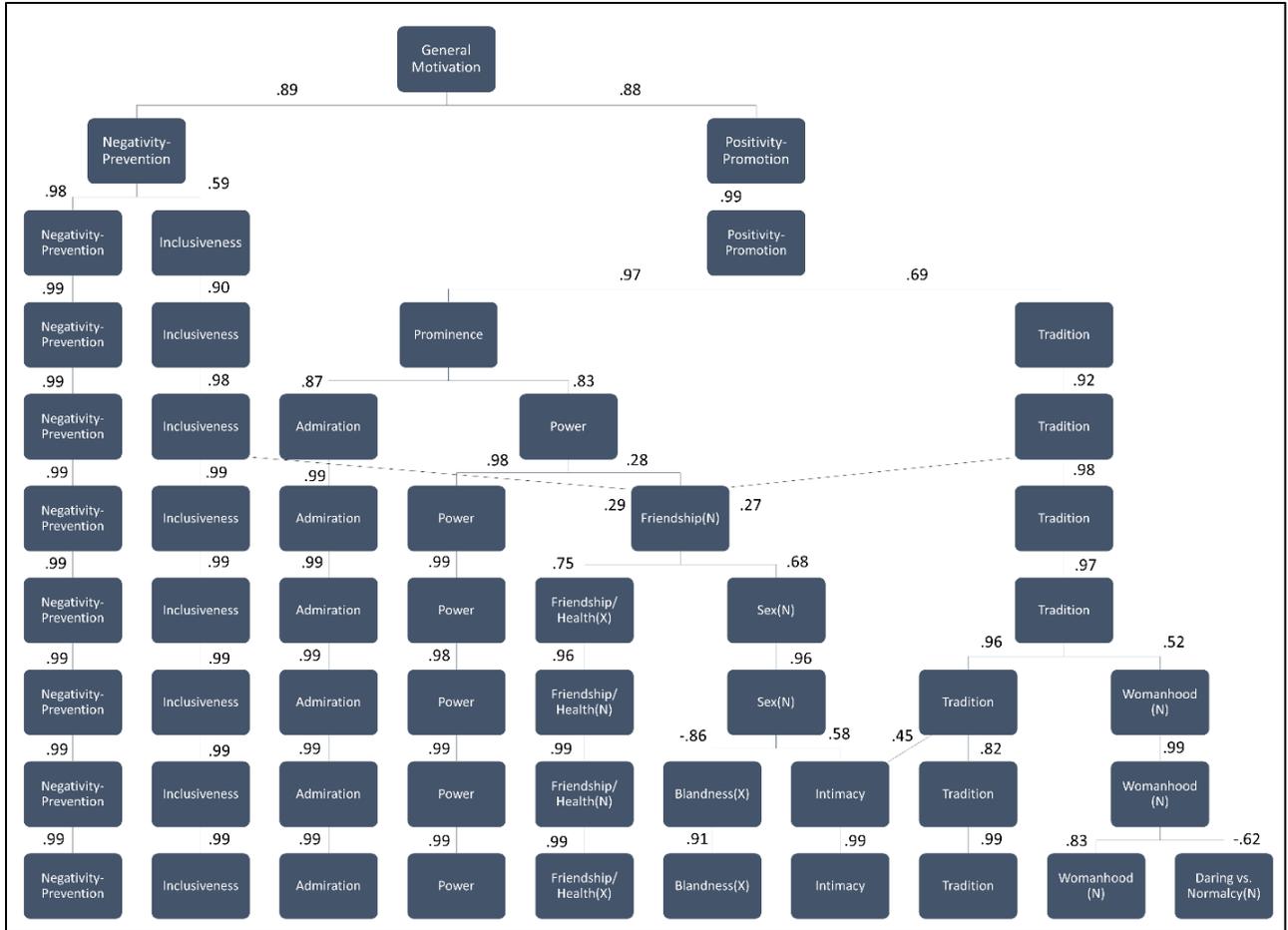


Figure 1. Dendrogram of the Bass-Ackwards Analysis, Study 1.

Note: X indicates that the highest-loading items all cross-loaded. N indicates a narrow component, defined by few items and/or highly-redundant items

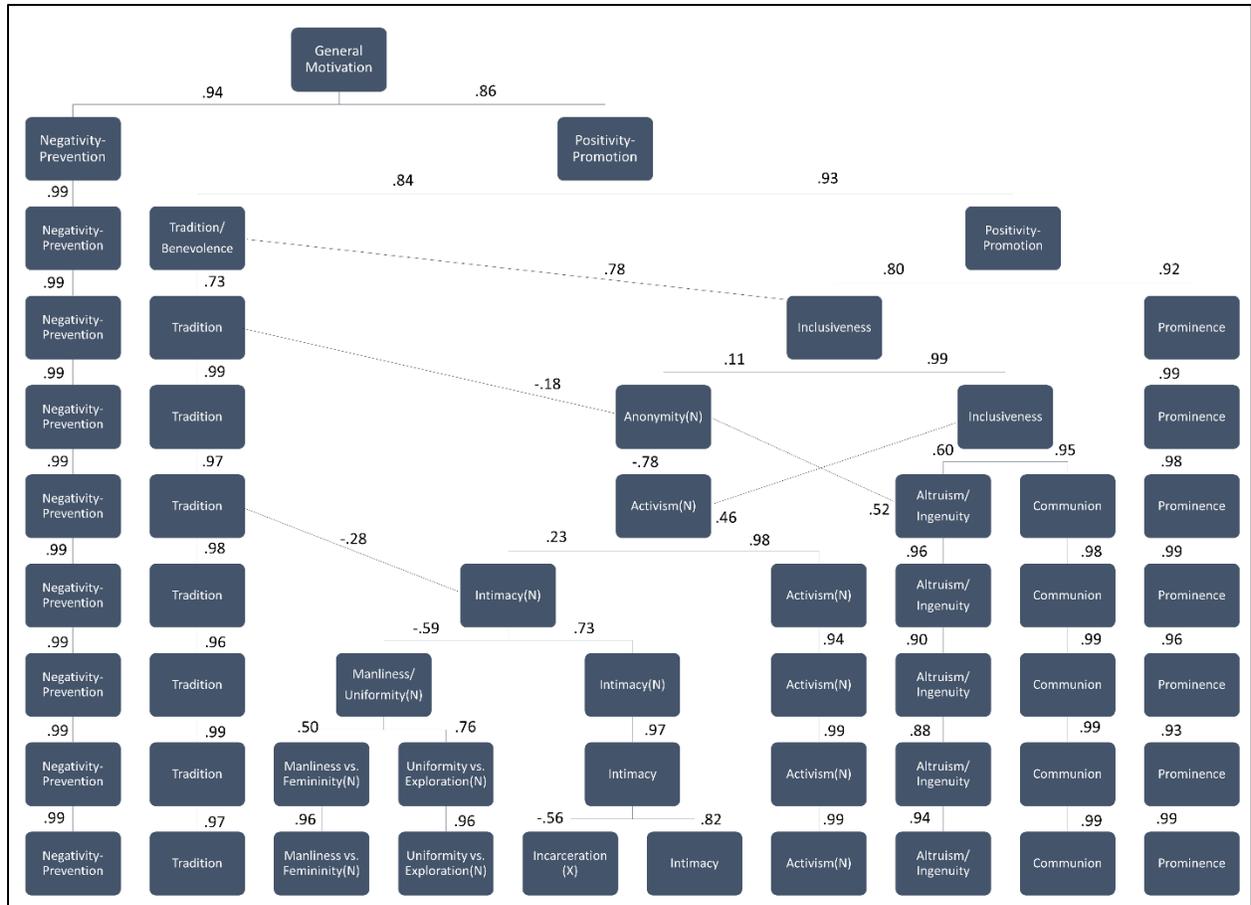


Figure 2. Dendrogram of the Bass-Ackwards Analysis, Study 2.

Note: X indicates that the highest-loading items all cross-loaded. N indicates a narrow component, defined by few items and/or highly-redundant items

### Appendix A: Initial Item Pool

**Items administered in both Study 1 and 2:** abandonment, ability, abnormality, abuse, acceptance, accomplishment, accountability, accuracy, achievement, activism, addiction, adequacy, admiration, adorableness, adultery, adventure, adversity, affection, affiliation, affluence, aggravation, aggression, agony, agreement, alcoholism, alienation, aloneness, altruism, Americanism, amusement, anarchism, anger, anguish, animosity, anonymity, anxiety, apathy, appropriateness, approval, assertiveness, atheism, athleticism, attentiveness, attractiveness, authenticity, authoritarianism, autonomy, awfulness, bankruptcy, beauty, believability, belonging, benevolence, bias, bigotry, bleakness, blessedness, boldness, bonding, boringness, bravery, breeding, brilliance, brotherhood, brutality, busyness, calmness, cancer, capitalism, career, carelessness, cash, caution, celibacy, certainty, championship, change, chaos, charity, chastity, cheating, cheerfulness, childishness, church, civility, cleanliness, cleverness, cockiness, coercion, coldness, combativeness, comfort, community, companionship, compassion, competence, competition, complacency, compromise, comradery, concentration, confidence, confinement, conflict, conformity, confrontation, confusion, connectedness, conscientiousness, conservation, conservatism, consistency, control, convenience, conventionality, cooperation, correctness, corruption, counterterrorism, courage, courtesy, crabbiness, crankiness, craziness, creativity, crime, criticism, cunning, curiosity, damnation, danger, death, debt, decency, deception, defeat, defiance, delinquency, democracy, demotion, dependence, depression, despair, determination, devotion, dictatorship, dignity, diligence, diplomacy, disagreement, disappointment, disapproval, disarray, discomfort, discord, discovery, discrimination, disease, disgrace, disgust, dishonesty, dishonor, disloyalty, disobedience, disorganization, disrespect, dissatisfaction, distress, diversity, divorce, doubt, dullness, earnestness, education, efficiency, elegance, embarrassment, emotionality, empathy, employment, empowerment, emptiness, enjoyment, enlightenment, enthusiasm, environmentalism, equality, equity, error, evil, excitement, exclusion, exercise, exhaustion, exploration, extremism, failing, failure, fairness, faith, falsehood, fame, family, famine, fascism, fatherhood, fatness, favoritism, fearlessness, femininity, feminism, fighting, fitness, flexibility, forgiveness, fortune, frailty, freedom, friendliness, friendship, frustration, fun, fundamentalism, generosity, gentleness, giving, gloom, glory, god, godlessness, goodwill, graciousness, graduation, gratefulness, greatness, greed, grief, growth, guilt, gullibility, happiness, harassment, hardship, harm, harmony, hassle, hatred, health, heartbreak, heaven, hell, helplessness, hilarity, hobby, holiness, homelessness, homophobia, honesty, honor, hopelessness, hospitalization, hostilities, humaneness, humbleness, humiliation, humility, humor, hygiene, hypersensitivity, hypocrisy, ideology, ignorance, illiteracy, illness, illogic, immaturity, immodesty, immorality, impatience, impoliteness, importance, impoverishment, improvement, inactivity, inadequacy, inappropriateness, incarceration, inclusion, incompetence, inconsistency, independence, indifference, individuality, industriousness, inefficiency, inequality, inequity, inferiority, infidelity, inflexibility, ingenuity, injury, injustice, innovation, insecurity, insensitivity, insignificance, insincerity, integrity, intellect, intelligence, intimacy, intimidation, intolerance, inventiveness, irrationality, irresponsibility, irritation, isolation, joy, justice, kindness, knowledge, lateness, law, lawlessness, laziness, learning, leisure, liberalism, liberty, life, lightheartedness, listening, literacy, loathing, loneliness, longevity, love, lovemaking, loyalty, luxury, madness, magnificence, malnourishment, maltreatment, manhood, manliness, manners, marriage, masculinity, mastery, materialism, maternity, mating, matrimony, maturity, mayhem, meaningfulness,

meaninglessness, mediocrity, meditation, meekness, melancholy, mercifulness, merit, messiness, militarism, misbehavior, mischief, misconduct, misery, misogyny, mistake, mistrust, mockery, modesty, money, moneymaking, monotony, moodiness, morality, narcissism, nastiness, nationalism, negligence, nervousness, niceness, nonviolence, normalcy, notoriety, nourishment, novelty, nurture, nutrition, obesity, objectivity, obnoxiousness, occupation, oddness, offensiveness, offspring, openness, oppression, optimism, orderliness, originality, ostracism, overweight, overworking, pacifism, pain, paranoia, parenthood, partner, passion, paternity, patience, patriotism, peacefulness, peacekeeping, perfection, perseverance, persistence, persuasiveness, pessimism, pettiness, philanthropy, pity, playfulness, pleasure, politeness, pollution, popularity, positivity, poverty, power, powerlessness, practicality, prejudice, pretentiousness, privacy, privilege, procrastination, procreation, productivity, profession, professionalism, proficiency, profit, prominence, promiscuity, promptness, prosperity, protection, punctuality, punishment, pureness, purpose, racism, randomness, rationality, reasonableness, reassurance, rebelliousness, recognition, reconciliation, recreation, regret, rejection, relaxation, reliability, religion, repression, reproduction, repulsiveness, reputation, resilience, respect, responsibility, rest, retirement, revenge, revenue, reward, riches, ridicule, righteousness, rigidity, risk, romance, rudeness, sacredness, sadness, safety, salvation, sanity, satisfaction, scandal, scholarship, schooling, secrecy, security, segregation, selfishness, sensationalism, sensitivity, serenity, seriousness, sexiness, sexism, shallowness, shame, sharing, sickness, silliness, simplicity, sin, skepticism, skill, sloppiness, smoking, soberness, sociability, socialism, solidarity, sophistication, sorrow, specialness, spirituality, splendor, stability, stagnation, starvation, sternness, straightforwardness, strength, stress, strictness, strife, stubbornness, stupidity, success, suffering, survival, sustainability, tackiness, teamwork, temptation, thankfulness, thinness, thoughtfulness, thoughtlessness, threat, timidity, tolerance, toughness, tradition, tranquility, transparency, travelling, trouble, trust, truthfulness, ugliness, uncertainty, uncleanness, unconventionality, underachievement, unemployment, unfairness, unfaithfulness, unfriendliness, unhappiness, uniformity, uniqueness, unkindness, unmanliness, unoriginality, unpleasantness, unpopularity, unselfishness, untidiness, urbanization, usefulness, uselessness, validation, values, vanity, viciousness, victimization, victory, violence, virtue, vulnerability, wastefulness, weakness, wealth, weirdness, wellbeing, wellness, wholeness, wholesomeness, winning, wisdom, womanhood, work, worship, worthiness, worthlessness, wrongdoing.

**Additional Items Administered in Study 1 (but not 2):** abrasiveness, absence, absoluteness, abstinence, accommodation, acknowledgement, actualization, adaptability, adoration, advancement, advantage, affirmation, ageism, agitation, alertness, allegiance, alliance, ambition, ambivalence, annoying, appearance, appreciation, apprenticeship, aspiration, assimilation, atonement, attachment, attention, authority, average, avoidance, award, awkwardness, bachelorhood, badness, balance, belittling, betterment, bitterness, blandness, boastfulness, buying, candidness, capability, care, celebrity, challenge, changelessness, character, charm, cheapness, child, choice, citizenship, civilization, closeness, clumsiness, cohabitation, collaboration, commendation, commitment, commonality, commonness, communion, completeness, complexity, compliance, complication, comprehension, compulsiveness, condescension, congeniality, consensus, constraint, contentment, contribution, coolness, counterculture, coward, creationism, credibility, cruelty, culture, cynicism, damage, daring, decisiveness, dedication, defense, defensiveness, deficiency, deficit, degree,

dehumanization, deliverance, delusion, dependability, depletion, depravation, deprivation, desirability, desire, destiny, destitution, development, difficulty, direction, directness, dirtiness, disadvantage, discipline, disconnection, discontent, disdain, disengagement, disharmony, disillusionment, disorder, dispassion, dispute, dissonance, distinctiveness, docility, domesticity, dominance, drama, dumbness, duty, dysfunction, eagerness, easiness, effectiveness, effort, egotism, elite, elitism, encouragement, energy, enhancement, entertainment, eroticism, esteem, estrangement, ethics, exactness, excellency, exclusiveness, existence, experience, expertise, exploit, expression, facilitation, familiarization, fanaticism, fatality, fatigue, favor, fearfulness, fellowship, fertility, fidelity, filth, finality, finances, flakiness, foreignness, freethinking, fretfulness, friction, frivolity, fulfillment, functionality, funding, girlishness, goodness, gracefulness, gratification, guardianship, guidance, gutlessness, handsomeness, harshness, healthcare, heartlessness, help, heritage, hierarchy, home, hope, house, humanization, humanness, hunger, hurt, ideal, idealism, identity, idleness, impartiality, imperfection, impress, impulsiveness, inability, inaccuracy, income, incompleteness, indebtedness, indiscipline, indiscretion, infertility, influence, information, infringement, inhumanity, initiative, innocence, insight, insomnia, inspiration, instability, insurance, integration, interaction, interconnectedness, intercourse, interest, intoxication, introspection, investment, involvement, job, joviality, judgment, karma, leader, legitimacy, leniency, lethargy, libertarianism, lifelessness, lifestyle, livelihood, loss, loveliness, lover, lying, mainstream, maleness, malevolence, manipulation, meanness, merrymaking, mightiness, migration, milestone, misdeed, misfortune, mismanagement, mission, mistreatment, moderation, modernization, monogamy, morale, mortality, mortgage, mother, motivation, muscularity, music, naiveté, neatness, neediness, negativity, nirvana, noncompliance, nonperformance, nothingness, nuisance, obedience, objectification, obligation, obsessiveness, obstacle, oldness, oneness, opportunism, opportunity, optimization, ordinariness, otherness, outrageousness, outspokenness, overconfidence, overreaction, ownership, panic, paradise, participation, payroll, peculiarity, penalty, perceptiveness, perkiness, permanency, persecution, personality, pet, phobia, plainness, pleasing, poise, possession, potential, practice, precaution, predictability, preparedness, preservation, prestige, prettiness, prevention, pride, principal, prison, problem, progress, promotion, property, protest, purification, quality, quiet, radicalism, raise, rank, rationalization, reason, reciprocity, redemption, regularity, relapsing, relationship, relentlessness, reliance, remembering, remorse, representation, residence, resistance, resolution, resolve, resourcefulness, restoration, retaliation, retribution, revolution, rightness, routine, rut, sacrifice, safekeeping, sameness, savings, scrutiny, senselessness, separation, sex, shelter, shortcoming, shyness, significance, silence, similarity, sincerity, singleness, sisterhood, skincare, slacking, smartness, sneakiness, solitude, specialization, spending, spinelessness, stamina, status, steadfastness, stereotype, stigma, strangeness, struggle, studiousness, subjectivity, submission, subordination, subservience, superiority, support, suppression, supremacy, suspiciousness, tact, talent, tax, tenderness, termination, thoroughness, tidiness, togetherness, totalitarianism, transcendence, transgression, triumph, understanding, unfamiliarity, unfitness, unification, unimportance, unity, unpredictability, unrest, unrighteousness, utility, utopia, vagueness, validity, variety, versatility, vigilance, vigor, virginity, vitality, vocation, vulgarity, weight, welfare, wildness, willfulness, willpower, wonderfulness, workforce, workout, worldliness, worry, wounding, wrongness, youth.

## Appendix B: The PINT Goal-Contents Scale

**Instructions to Participants:** In your day-to-day life, you undoubtedly expend effort trying to reach certain desirable goals; and trying to stay away from other things that would be undesirable. On the following questionnaire, please indicate whether each word you see represents a goal of yours or not. To do so, use the 9-point response scale provided. For example, if a word represents something desirable that you are highly committed to reaching, keeping, or having, select the +4 option (i.e., "I have an extremely strong commitment to this"). Alternatively, you may select +3 (i.e., "I have a very strong commitment to this"), +2 (i.e., "I have a moderately strong commitment to this"), or +1 (i.e., "I have a somewhat strong commitment to this") options to indicate less strong commitments to reaching, keeping, or having something.

If a word doesn't represent a goal of yours at all, select the 0 option (i.e., "I have no commitment to this").

If a word represents something that you are strongly committed to avoiding, select the -4 option (i.e., "I have an extremely strong commitment to avoiding this"). To indicate a less strong commitment to avoiding something, select either -3 (i.e., "I have a very strong commitment to avoiding this"), -2 (i.e., "I have a moderately strong commitment to avoiding this"), or -1 (i.e., "I have a somewhat strong commitment to avoiding this").

We are interested in your current goals in your life. If a word represents a goal you had in the past, but do not have now at all, please select the 0 option (i.e., "I have no commitment to this"). Only indicate something is a goal if you are currently committed to spending effort on it.

Also, there are many things in life that we like or dislike, but that we aren't committed to spending effort on. You may like puppy dogs, for example, but not spend any effort trying to help puppy dogs. If this is the case, helping puppy dogs is not a goal of yours. Please be sure that you are only saying something is your goal when you are committed to spending effort on it.

**Prominence:** championship, competition, control, glory, greatness, moneymaking perfection, popularity, power, privilege, sexiness

**Inclusiveness:** activism, comradery, diplomacy, diversity, empathy, equity, inclusion, interconnectedness, philanthropy, solidarity, transcendence

**Negativity Prevention** (*all items reversed*): abnormality, craziness, death, fighting, fatness, hypersensitivity, isolation, mediocrity, melancholy, pity, unemployment

**Tradition:** atheism (*reversed*), blessedness, conservatism, marriage, obedience, obligation, parenthood, patriotism, pureness, tradition

### **Response Scale:**

- 4 I have an extremely strong commitment to this
- 3 I have a very strong commitment to this
- 2 I have a moderately strong commitment to this
- 1 I have a somewhat strong commitment to this
- 0 I have no commitment to this
- 1 I have a somewhat strong commitment to avoiding this
- 2 I have a moderately strong commitment to avoiding this
- 3 I have a very strong commitment to avoiding this.
- 4 I have an extremely strong commitment to avoiding this

Note: Items are administered in a random order.

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