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Gone Too Far—Or Not Far Enough? Comments on the Article by Ashton and Lee (2001)

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Abstract

Ashton and Lee argue that Honesty should be added to the Big Five model of personality as a sixth factor, and present a theoretical framework for interpreting Big Five factors and Honesty that helps make sense of the proposed six-factor structure. The attempt by Ashton and Lee to go beyond the Big Five is applauded, but numerous problems are evident. Adding Honesty to the Big Five is plausible only if one ignores key assumptions that the Big Five model consists of independent factors that are candidates for pervasive lexical universals. The proposal does not take into account significant deviations from the Anglo-Germanic Big Five that have occurred in emic studies of languages having their origin outside of northern Europe, nor potential substantive interpretations of the widely replicated Negative Valence factor. Future studies should seek improvements or alternatives to the Big Five in a way that keeps constituent factors well discriminated from one another and enhances the likelihood of ubiquity across diverse languages and cultures.

INTRODUCTION

Ashton and Lee (2001) deserve applause for several directions evident in their article. First and foremost, they have attempted to go beyond the bounds of the Big Five model, which is commendable: given the uneven replication record of the Big Five in cross-cultural emic–lexical studies (Saucier, Hampson and Goldberg, 2000; Saucier and Goldberg, in press), there is a need for promising competitor models with which to compare the Big Five. As Block articulated, 'there must be empirical and conceptual competition between alternative dimensional offerings to see which, predictively, best carves nature at its joints' (1995, p. 221). At this point, we cannot be sure whether some other structure is more replicable or predictive than the Big Five because no competitor model has been widely tested.

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Moreover, previous studies (e.g. Hofstee *et al.*, 1992; Saucier, 1992) make clear that there are many potentially important variables in the interstitial regions between the Big Five factors, indicating that some Big-Five factor-axis locations could be arbitrary. Ashton and Lee here (see also Ashton, Paunonen, Helmes and Jackson, 1998) make some cogent arguments for relocating factor axes in some of these previously interstitial regions.

Finally, the Big Five is an empirically derived structure that has tended be theoretically ill defined. Ashton and Lee attempt to provide a theoretical basis for these factors, most cogently so for the rotated versions of Agreeableness and Emotional Stability (empathy and forgiveness/retaliation) and for their proposed Honesty factor. The theoretical linkages made between Honesty and integrity, and between the gregarious aspects of Extraversion and attention-seeking, attention-getting behaviour are of much interest.

However, I find the revised personality-structure model offered to be ultimately less than satisfying. In several important ways, the authors have gone too far, making assumptions that are either (a) difficult to examine given evidence from other studies or (b) inconsistent with such evidence and with influential past formulations about the Big Five. As a result, the proposed revision to the Big Five seems not to make it stronger in significant ways, but instead to trade in a few existing problems for a few new ones. Conversely, in several other important ways, the authors have not gone far enough. If the goal is a promising competitor model for the Big Five, as I think it should be, some additional conceptual steps need to be taken. The article by Ashton and Lee represents an expedition of the sort we need more of, but this particular expedition does not arrive at a destination where one should wish to linger for long.

GONE TOO FAR?

First of all, Goldberg (1981) originally proposed the Big Five as potential lexical universals—meaning that the factors would hypothetically be found in studies in any human language. Lexical universals, if discovered, would be of sterling import for personality psychology, as they would tend to indicate underlying biological patternings. In contrast, Ashton and Lee advocate a looser criterion: they suggest that any lexical factor that is interpreted as occurring in 70% of a selection of studies is remarkable. However, by this looser criterion, there might be many untested competitor structures (representing various combinations of factors each interpreted as replicated in multiple studies) that would be just as remarkable.

Another major issue concerns basic structural assumptions. The Big Five model is a model of five independent factors. Although Big-Five-related studies occasionally employ oblique rotational algorithms to compare with orthogonal ones, the standard methodology involves an orthogonal varimax rotation. Where scale scores are used, substantial intercorrelations among them are a source of embarrassment (Block, 1995; Saucier, in press), leading five-factor proponents to advocate orthogonal factor scoring of persons, either by a new factor analysis in each sample (see e.g. Goldberg, 1992) or by application of uniform factor-score weights (Costa and McCrae, 1992; McCrae, Zonderman, Costa, Bond and Paunonen, 1996). Moreover, there is recent evidence that the moderate intercorrelations among Big Five scales can be reduced to near zero by more precise scale-construction methods, without affecting substantially the character and interpretation of the factors represented (Saucier, in press).

Orthogonal factors are, of course, not always superior to oblique-factor models; in many cases oblique factors will be more appropriate. However, orthogonality is an advantageous feature of the Big Five model in particular, for two reasons. First, when one is mapping a domain of variables, as when one is mapping a physical landscape, orthogonal axes provide a superior coordinate system for locating points on the map. As a result, those psychometric theorists (such as Guilford (1954)) who have emphasized the use of factors to represent tests graphically have usually preferred orthogonal rotations. Second, orthogonal predictors are more efficient in multiple-regression analyses because they minimize multicollinearity and maximize discriminant validity; as Jackson (1971) noted, 'if one wishes to maximize the predictability of a battery, entirely uncorrelated tests would be appropriate' (p. 246). Because the Big Five are so widely used as a taxonomic coordinate system for personality variables, and as predictors in applied research, orthogonal factors are crucial to the model. If the factors were *not* orthogonal, they would be less useful as a structural map, and less efficient as a set of predictors.

Ashton and Lee admit that the proposed Honesty factor is not entirely independent of other Big Five factors, although they provide no interscale correlations. They note that many Honesty terms were appreciably correlated with Agreeableness in both the French (Boies, Lee, Ashton, Pascal and Nicol, 2001) and Korean (Hahn, Lee and Ashton, 1999) data sets. If Honesty, then, is added to the Big Five, we have an inconsistent admixture of five mutually orthogonal factors with a sixth factor that is correlated with at least one of the first five. This inconsistency could be resolved by showing how Agreeableness (or Honesty, or both) could be altered so that its correlation with the other factor would be reduced. Lexical studies provide some indicators in this respect. In Italian (Di Blas and Forzi, 1998) a Trustworthiness factor (interpreted as Honesty by Ashton and Lee) appears in a solution with two other Agreeableness-related factors: one is labelled Quietness (e.g. peaceful versus irritable) and the other Warmth. Perhaps, Honesty would not be correlated with Agreeableness if the latter factor were reduced to an 'irritability' factor, or to a 'warmth' factor, or both. But Ashton and Lee do not propose such a resolution. Instead, we are presented with a five-independent-factors model that has an obliquely correlated add-on.

If we accept the proffered five-plus-one model, we begin a path down a slippery slope. There are other constructs that are similarly related to the Big Five and have enough theoretical importance that they might be similarly appended to the Big Five. Religiousness is less correlated than Honesty with the Big Five (Saucier and Goldberg, 1998), and there have been suggestions that one or more spirituality dimensions could be added to the Big Five (MacDonald, 2000). Similar situations obtain for dimensions related to individual differences in sexuality-related behavior (Schmitt and Buss, 2000) and Attractiveness (Goldberg and Somer, 2000; Saucier, 1997). Prejudice, Humour, Machiavellianism, Narcissism, Culture, and Traditionalism seem to be related even less highly than Honesty with the Big Five, and strong arguments could undoubtedly be mounted for each of these as a sixth factor. 'What is beyond the Big Five?' Paunonen and Jackson (2000) asked, and concluded 'plenty!', using liberal criteria that would allow any of the just-mentioned candidates to be added to the Big Five.[1] To avoid the slippery slope, and to maintain an efficient set of non-collinear predictor factors, it would be

[1]The liberal criterion of Paunonen and Jackson (2000), leading to the conclusion that there are many dimensions beyond the Big Five, is based on their use of *squared* multiple correlation coefficients as an index of convergence between measures, as well as ignoring attenuation, which is in some cases considerable, due to unreliability.

worthwhile to insist that an independent-factor model should contain only mutually independent factors.

If we do so, we can question whether in fact *any* lexical factor study has ever found an Honesty factor alongside a Big Five structure that is not in some way altered from the Anglo-Germanic Big Five prototype (see e.g. Goldberg, 1990; Ostendorf, 1990; Saucier and Ostendorf, 1999). That is, has a highly prototypical Big Five ever appeared in a factor solution alongside an Honesty factor? Unfortunately, some of the analyses to which Ashton and Lee refer are either unpublished or ascertained via personal communications. Among the published analyses that Ashton and Lee interpret as containing an Honesty factor, the Hungarian (Szirmák and De Raad, 1994), Italian (Di Blas and Forzi, 1998), Filipino (Church, Reyes, Katigbak and Grimm, 1997), Hebrew (Almagor, Tellegen, Waller, 1995), and Korean (Hahn *et al.*, 1999) factor structures each include two factors that might be interpreted as Extraversion; in each case, one factor contained descriptors translated in terms such as Self-Assured, Strong, Brave, Courageous, Bold, or Assertive, while the other contained descriptors such as Sociable, Talkative, Lively, Cheerful, and Friendly.[2] Moreover, in the Italian, Hebrew, and Filipino structures there was a distinct factor emphasizing irritability, anger, and temperamentalness, and the Korean structure featured a displacement of Conscientiousness toward Intellect. These examples suggest that the remainder of the structure in which apparent Honesty factors are found should not be assumed to be precisely the Big Five. Of course, these examples also suggest problems with the replication of the Big Five. Ashton and Lee may have hooked a much bigger fish than they thought.

NOT GONE FAR ENOUGH?

Lexical factor structures containing an Honesty factor typically have significant variations from the Big Five structure. So we might take the findings of Ashton and Lee as indicative of an alternative structure systematically different from the Big Five. To be optimally informative, scientific studies should test more than one model. There is a need for models to test in competition with the Big Five, and perhaps the apparent Honesty factor is part of a structural rearrangement that could turn out to be more general than the Big Five. In defining an alternative structure, Ashton and Lee have not gone far enough. Stopping short by merely appending Honesty to the Big Five as an obliquely related add-on may be missing a considerable opportunity. Although the Big Five is widely known and used, it is but a structural hypothesis, and perhaps it does not need the kind of deference Ashton and Lee give it.

As already noted, an Honesty factor has appeared generally in studies in which the Big Five structure is appreciably altered in some way, perhaps many ways. These structures tend to have two apparent Extraversion factors (which might be labelled Gregariousness

[2]Although this study reported no Honesty factor, the Turkish factor labelled Emotional Stability by Goldberg and Somer (2000) featured terms translated as Strong, Self-assured, Courageous, Tough, and Fearless with salient positive loadings, whereas the factor labelled Extraversion emphasized sociability and positive affect. The French lexical study (Boies *et al.*, 2001) has two factors interpretable as Extraversion that diverge in similar ways. Referencing subcomponents of the Big Five (Saucier and Ostendorf, 1999), one factor emphasizes Assertiveness and the other Sociability. Many theoretical formulations about Extraversion seem to focus on the latter. However, the Self-Assurance or Assertiveness component reflected in the 'second Extraversion factor' has its own already-rich theoretical and psychometric background (see e.g. Bem, 1981; Blascovich and Tomaka, 1991; Dienstbier, 1989; Gray, 1982).

and Self-Assurance), and often a distinct Irritability/Temperamentalness factor. I have recently noted the unusual convergence of seven-factor structures in studies conducted in nations, and using languages spoken, six time zones apart—in Hebrew and in Filipino (Saucier and Goldberg, in press). A follow-up set of analyses indicates that the English translations of those terms that the authors of the two studies (Almagor *et al.*, 1995; Church *et al.*, 1997) found to be salient factor-marker terms show a high degree of empirical convergence in American data (Saucier, 2001). Moreover, a similar structure can be obtained in English-language data if variable-selection criteria are relatively inclusive as in the two original studies. This structure appears to be a useful competitor model to the Big Five—we already have indications that it is obtained more readily in Hebrew and Filipino than is the Big Five.

Ashton and Lee are critical of the so-called Negative Valence factor, which features variables, most typically undesirable, that are extreme in evaluation. However, Honesty marker terms cited in their article (e.g. Fair, Honest, Trustworthy, and their opposites) are nearly as evaluatively extreme, and therefore also generate skewed distributions in self-ratings.[3] Indeed, terms (in English translation) like cited Honesty terms are frequently associated with Negative Valence factors: Greedy, Treacherous, Cheater, and Immoral in a Philippine version, Corrupted, Crook, and Pretentious in a Hebrew version; Unprincipled, Dishonest, Dishonorable, Swindler, Immoral, Treacherous, Exploitative, and Pretentious in a Turkish version (Goldberg and Somer, 2000), and Corrupt, Unfaithful, Unfair, and Dishonest in an American version (reported in part in Saucier, 1997, Table 7). Ashton and Lee take very seriously the unsubstantiated interpretation of Tellegen, Waller, and others, that Negative Valence reflects a broad tendency to view oneself negatively, in a content-free way, and is related to borderline personality. They argue that it is 'inappropriate to include non-descriptive terms in lexical studies of personality structure'. This *verboten* is sensible if Negative Valence terms are generally content free, but most of the terms associated with Negative Valence factors in fact have some descriptive content. Therefore, I am concerned that summarily discarding Negative Valence will involve casting out a baby with the bathwater.

Consider terms loading most highly on the Negative Valence factor in an American study (Saucier, 1997, Table 7): Evil, Corrupt, Dangerous, Abusive, and Violent suggest psychopathy content (as would Dishonest, Untrustworthy, and other low Honesty indicators); Insane suggests psychosis; Senile suggests dementia; Retarded, Stupid, and Dumb suggest mental retardation or learning disorder; Homeless suggests marginalization with respect to society. What do these 'facets' of Negative Valence have in common? They are all forms of social deviance—inability (in some cases, unwillingness) to conform to social rules and expectations—that in contemporary Western society would imply a need for institutionalization, treatment, or special help. It may be significant that the most salient reverse-pole Negative Valence descriptor in the Philippine study (Church *et al.*, 1997) was *Normal* (a cognate term imported from Spanish and/or English).

This social-deviancy interpretation of Negative Valence has wider implications for the theoretical framework of Ashton and Lee. Their theoretical account assumes that persons who cannot be relied upon—who are not truthful or trustworthy—are fundamentally

[3]For example, in self-reports from a sample of 700 respondents (described by Saucier, 1997), the Honesty marker-term Unfair had a mean (on a 1–7 scale) of 1.80, Dishonest 1.64, Phoney 1.45, and Unfaithful 1.45. The Negative Valence terms cited by Ashton and Lee, and their means in the same sample, were Disgusting 1.51, Awful 1.50, and Terrible 1.44. There seems to be little difference in the response means (and thus the skewness) of negative-pole Honesty terms and Negative Valence terms.

exploitative in their orientation. But psychosis, retardation, and dementia (not to mention the status of being a two-year-old) can also lead a person to be undependable in word and deed, and to violate society's reciprocity norms. Certainly, claims of moderate to severe social deviancy (i.e. high Negative Valence in self-report) in convenience samples (e.g. on university campuses) cannot always be taken at face value—acquiescence or random responding may contribute. However, Negative Valence may be substantively interpretable; we cannot assume it is content-free without further study.

There is now little dispute about the independence of Negative Valence and Big Five factors such as Agreeableness. It would be helpful if Ashton and Lee could provide correlations between Honesty and Negative Valence; it seems plausible that Dishonesty (or Unfairness, or Untrustworthiness) could be considered a facet of Negative Valence that happens to be correlated substantially with Agreeableness. In other words, if one partials Agreeableness (and other Big Five factors) out of Honesty, what is left may be associated with nothing but Negative Valence. And Negative Valence should not be assumed *a priori* to be a useless or non-predictive construct. If, for example, employers are interested in screening out applicants with low Integrity (i.e. Honesty, Trustworthiness), one would expect them to be similarly interested in screening for other, non-psychopathic, forms of social deviancy (e.g. psychosis, dementia, retardation) that might affect an applicant's work performance.

The Honesty factor that Ashton and Lee suggest is found in 70% of qualifying lexical studies may be part of an even more robust, perhaps ubiquitous, phenomenon of personality-attribute structure, and the search for truly ubiquitous phenomena should surely be a scientific priority. Dimensions of personality and person-description that are indifferently obtainable from any language and culture might well be more than just semantic patterns. They might indicate either underlying biological systems, discernible when culture-specific effects on factor structure are removed, or important elements in the structure of human cognition. Ashton and Lee propose some highly interesting theory regarding personality dimensions *vis-à-vis* bases of prosocial and antisocial behaviour (fairness, forgiveness, and empathy), but we can expect a far greater theoretical gain from a structure that is more truly ubiquitous than 'Big-Five-plus-Honesty'.

CONCLUSIONS

Have Ashton and Lee gone too far? Have they not gone far enough? I believe the answer is 'yes' to both questions. The proposal to add Honesty to the Big Five is plausible only if one ignores key presuppositions of the Big Five model, that the factors are independent of one another and are proposed to be pervasive lexical universals; thus, they have gone too far. On the other hand, attempts like that of Ashton and Lee to improve on, or offer a competitor model to, the Big Five are laudable, but in this regard Ashton and Lee have not gone far enough. Such attempts will be more effective if (a) an entire set of mutually independent factors can be demonstrated in one or more actual factor-analytic solutions, (b) account is taken of the significant deviations from the Anglo-Germanic Big Five that have occurred in studies of languages that have their origin outside northern Europe, and (c) substantive interpretations of the widely replicated Negative Valence factor are considered.

A Big-Five-plus-Honesty model would provide more information (six instead of five predictors) than the Big Five alone, and could be theoretically clearer. However, this model

would not be consistent in a structural sense (containing both orthogonal and oblique factors), or consistent with any structure obtained to date in actual lexical studies, where Honesty-related factors do not appear in company with prototypical versions of all of the Big Five. Moreover, it does not seem necessary at this juncture to abandon the search for lexical universals that would, if verified, have greater theoretical import. If the Big Five is to be replaced or improved upon, we should be assured that the successor is truly superior to the predecessor.

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