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Personality science and personal projects: Six impossible things before breakfast[☆]

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Abstract

Personality science pursues the paradoxical project of specializing in comprehensiveness, a pursuit that some may see as an inherently impossible undertaking. Accompanied by one such contrarian, a hypothetical “Reviewer C,” I explore six possible “impossibilities” in personality science. Together we examine our epistemological assumptions, conceptual units of analysis, assessment methodologies, psychometric techniques, social impact, and organizational viability. I focus on “personal projects” (Little, 1972, 1983) as core integrative units of analysis that provide linkages with other integrative units. I propose that personality science will assume increasing importance at the very center of university curricula, as a hub of scientific progress and as a stimulant for a diversity of applied fields. Its paradoxes and perplexities notwithstanding, personality science is an audacious project that is already advancing our understanding of the depth and subtleties of human natures and nurturing attempts to enhance the quality of lives.

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1. Introduction

“I can’t believe *that!*” said Alice. “Can’t you?” the Queen said in a pitying tone. “Try again: draw a long breath, and shut your eyes.” Alice laughed. “There’s no use trying,” she said: “one *can’t* believe impossible things.” “I daresay you haven’t had much practice,” said the Queen. “When I was your age, I always did it for half-an-hour a day. Why, sometimes I’ve believed as many as six impossible things before breakfast. (Lewis Carroll from “Through the Looking Glass”)

Personality psychology pursues the paradoxical project of specializing in comprehensiveness (Little, 1972). To some, this is a *logical* impossibility that no amount of deep breathing and eye closing can rectify. Personality psychology, from its inception, sought to *integrate* the disparate processes studied by other areas of psychology, as well as its own indigenous concerns. To some, this is a *practical* impossibility. Recently, the incursion of scientists from other disciplines into domains typically studied by personality psychologists has led to an emerging personality science, symbolized vividly by the creation of the Association for Research in Personality (ARP). To some, the prospects for such a viable personality science will be an *utter* impossibility.

I disagree with these contrarian views, but I believe they deserve a fair hearing and a constructive response. Accordingly, I wish to offer some celebratory and some cautionary comments on personality science. My hope is that they might contribute to the sustainable pursuit of this audacious project.

The *celebratory* comments come easily at an ARP convention. It’s not that Big Five theorists are doing High Fives or that Goal Theorists are yelling “Gooooal” like European football announcers. But there is a palpable sense of intellectual excitement among those committed to this venture (e.g., Cervone & Mischel, 2002; Mischel, 2004; Morf, 2002; Wiggins, 2003). Many of our students share this excitement and one can imagine that it would take a mighty force, indeed, to impede the progress of the Personality Science Project.

1.1. Enter the mighty force: The impossible voice of “Reviewer C”

However, there *is* such a force. I want to invoke it, personify it and have it accompany us through my paper. We’ve met it already in the “impossible” allusions in the opening paragraphs. The force is “Reviewer C,” the *cautionary* voice of this presentation. Action editors seek out a Reviewer C when a problematic submission needs a few pithy paragraphs to help activate the “reject” macro. C’s reviews of our own work make us sputter with frustration or calmly correct our now obvious flaws. I believe each of us has internalized a mini-C: it makes us hesitate before submitting articles, pause in a lecture when data are equivocal, and demur when asked for quick sound bites on complex issues. That said, Review C is a necessary and vital force in our quest for a personality science. Without a contrarian counterbalance to unbridled optimism our science would evaporate in an illusory glow of spurious certitude.

For rhetorical purposes I’m going to assume that Reviewer C believes deeply that the world according to ARP is a non-starter. He also just happens to be male.

His general concern is that we have enough difficulties integrating information generated from *within* psychology, let alone inviting geneticists, demographers, evolutionary biologists, and political philosophers to our proceedings.

1.2. Colleague C: Guess who's coming to breakfast?

Imagine that Reviewer C, now a new member of our department, invites us to a breakfast meeting to hold forth on the foundational flaws of a personality science. I note with concern that I am the only department member trekking over to the faculty club for breakfast with C, but I realize that this particular setting allows me to focus on the kind of personality science that I find compelling. As the Grand Contrarian visits other tables of scholars, advising them to vacate *their* tacit premises, I draw a long breath, shut my eyes and brace myself for attack. It comes quickly and loudly and his stentorian pronouncements echo through the faculty club as I stare earnestly at the cutlery:

“You personality scientists have six foundational problems. You are epistemologically misguided, conceptually confused, methodologically muddled, statistically timid, socially ineffectual, and institutionally impoverished. Your prospects are dim because your core projects are unsustainable. You are impossible. And I need to go to the restroom.”

Occasionally a project lands on one's lap implicitly labeled “act of courage” and like it or not (I tend not to)—this is such an occasion. C needs to be dealt with, and while he was restoring himself I pulled out my secret weapon. I had been warned that he was concerned about six foundational issues and would apprise me of them before breakfast. I guessed what they might be and had written up a “prejoinder,” as it were, to his comments. I quickly penciled in his six charges in the relevant sections. “Here,” I said, handing him the following pages, “read this.”

2. Issue one (Epistemological): Agents, subjects, specialists, and boredom

Are we misguided on epistemological issues? Two closely related questions are critical here. The first involves the evidentiary status of the people we study in the field of psychology, the second is concerned with the role played by our own personal orientations. Together they ask whether we trust our respondents as sources of insight and whether we trust ourselves as dispassionate inquirers.

The question of evidentiary status turns on whether we view the people we study as agents capable of providing reasons for actions or as creatures whose conduct is explicable by causal processes detectable only by instrumentation, expert appraisal, or consensual judgment of unbiased observers? Of course our answer depends in part on whether the creatures we are studying are philosophers or ferrets, but for now I want to restrict ourselves to agents who can speak softly about their concerns or yell at us about their convictions.

Long before the official arrival of the cognitive revolution, Kelly (1955) articulated a view contrasting starkly with the conventional deterministic views of both

behaviorism and psychoanalytic theory. Kelly viewed the subjects of our experiments as lay scientists, admonishing us to adopt a “credulous” view of those who, for him, were essentially co-investigators. His plea, one shared with Gordon Allport, was that if we wanted to know what people were on about, ask them, and they might just tell us. For Kelly, our science would be necessarily reflexive, advancing, and testing theoretical propositions that would subsume, among other things, the acts of advancing and testing theoretical propositions.

Contrast Kelly’s position with the classical behaviorist one, or with a view still influential in some areas of social psychology, where credulousness is greeted with incredulity. Under this view, asking individuals what they think ignores that they may distort, dissimulate, or deceive. People may be unable or unwilling to tell us anything of significance, other than confirming their expectations of what they think we want them to tell us. Of course the latter “limitation” is consistent with Kelly’s view that our respondents are themselves co-investigators and with Bannister’s (1966) paradox that those we study occasionally have more elegant hypotheses about what is being tested than the experimenters themselves. The question can be rephrased as this: should we regard the people we study as passive subjects whose accounts are irrelevant or as active agents with privileged access to matters of focal concern to our inquiry? I believe that the stance we take on that issue has a subtle and important impact on our choice of conceptual units, our methodologies and the quality of our empirical probes. I also believe our stance reflects the second aspect of the epistemological question: our personal orientations.

I explored both aspects of the epistemological challenge a number of years ago, when I proposed a constructive alternative to Kelly’s “scientist” metaphor (Little, 1972). I suggested that the “scientist” model of Kelly be modified to emphasize that both as lay scientists and “real” ones, we were *specialists*, selectively oriented toward different aspects of the environment. Differential orientation toward persons and things, in particular, was posited as playing a pivotal role in human development, channeling behavioral, cognitive, affective, and communicative processes (Little, 1972, 1976). Two contributions from that research program are directly relevant to C’s concerns, one relating to the stance we take toward those we study, the second demonstrating *empirically* the role of personal orientations on epistemological preferences.

Regarding those we study as specialists suggested that a credulous approach was a necessary first step in psychological inquiry, but not necessarily the termination point. Depending on the research question being explored we should move swiftly to solicit information about domains where our respondents have privileged information. For example, we could “guess” what their primary interests and everyday personal projects might be, or we could directly solicit accounts. The direct solicitation of accounts is more efficient, certainly, but also accesses reasons for action that have an explanatory status some would deem as critical to accounts of human conduct (Little, 1972, 1987).

The findings regarding the impact of personal orientation on scientists’ theoretical convictions is challenging to those convinced that there is a constitutional separation of powers between our personal and scientific modes of knowing. I correlated the

scores of a group of Presidents of the American Psychological Association on person-orientation and thing-orientation (based on reports of everyday activity preferences) with independent ratings of their formal psychological theories. For the latter, two major factors emerged, subsuming a number of more specific theoretical and methodological preferences, including dimensions related to issues of agency and credulousness. One I labeled “physicalism”; the other “personalism” and those scoring high on each factor were readily recognized as prototypical “brass-instrument experimentalists” and classic clinicians and personologists, respectively. The correlation between these formal theoretical convictions and everyday orientations were substantial and significant—person specialists were personalists subscribing to credulous epistemologies, thing specialists were physicalists committed to mechanistic explanations (Little, 1976).

One can imagine C hearing about this, harrumphing, and claiming that this simply adds empirical fuel to his charge that a field as synoptic in reach as personality science is likely to attract both personalists and physicalists, sitting in sullen silence at the opposite ends of the epistemic log, differing not only in their approaches to science, but in their most deeply rooted personal orientations. How misguided is that?

Fortunately, there was another robust empirical finding that emerged from this early research: person orientation and thing orientation are orthogonal. Some individuals, whom I called non-specialists, were not particularly interested in either persons or things (we subsequently discovered they were self-specialists). But others were high on both person and thing-orientation: these *generalists* were more creative and flexible in their construing of events, able to shift between personalistic and physicalistic construing as demanded by the tasks confronting them. The preferences and epistemological styles of these generalists would auger well for their openness to endeavors that bridged the humanities and the sciences.

Thirty years on, these synoptic thinkers would appear to be the perfect candidates for a central role in the development of a personality science. We need them. However, a critical mass of generalists is a necessary, but insufficient, condition for the flourishing of a personality science. We need a diversity of epistemological orientations, not a single direction in which we all march. C is concerned that we may be misguided in our tacit assumptions about how to know those we study. But this assumes there is only one direction and we may not have found it. I believe, on the contrary, that one of the excitements of personality science is the diversity of orientations that we bring to the field.

C is concerned that we are trying to integrate academic specialties that have diametrically opposed views of how to explain human conduct and, if pushed, would ask how it is possible to have a common forum in which evolutionary psychologists or genetic researchers can talk with narrative theorists of the self in any intelligible fashion? The most compelling answer to this is the very existence of ARP, where there is an open invitation for personalists, physicalistics, generalists, and single lens reflex specialists to sit together. Having built ARP and extended the invitation is a critical first step. Whether they will come and where they will sit is a surprisingly complex issue and will be examined below.

One cautionary note: I think it likely that those at the extreme personalistic and physicalistic ends of the explanatory continuum will find each others' research rather

boring. This is hardly a foundational flaw but a pervasive reality of living in groups. Some people just don't get what others are agog about. We should be tolerant of different styles of doing personality science and avoid undue taunting and teasing of the various epistemological species we encounter at our conferences and in the classroom. However, a certain amount of tactical teasing, if warranted, keeps us on our toes.

To the first challenge of C, then, our answer is that we are not misdirected epistemologically but open to many different directions. Personality science attracts a core of generalist scholars who can help translate the findings of those who return from distant and very different domains. C should not mistake our open mindedness for empty headedness.

3. Issue two (conceptual): The importance of integrative units of analysis

Are we confused conceptually? Even when Allport (1958) wrote his classic paper asking, "What units shall we employ?" there were signs of chaotic complexity in the conceptual structure of personality study.

Three issues were of particular concern. First, he noted the proliferation of nomothetic constructs and called for clarification of the hierarchical nature of these analytic units. Second, he struggled with the role of situations in personality, acknowledging their importance, but emphasizing the need for concepts capturing the stable internal structures of personality. Third, Allport proposed what he felt was a more radical shift. He argued that, with rare exceptions, such as Kelly's personal constructs, idiographic units of analysis were understudied and that until patterns of individualized structures were examined, the distinctive features of human personality would remain opaque. How do we stand on these issues of conceptual clarity in personality research today?

Contemporary research in personality has made major strides on all three of these conceptual tasks. As a result, we have advanced both the scope and the integrative capacity of personality psychology and laid the foundations for an expanded personality science. Central to these advances has been the emergence of several integrative units at different levels of analysis.

First, the structural features of different units of analysis in personality have received considerable attention. McAdams (1995) proposed a three-tier structure comprising traits, personal concerns, and life stories. Although McAdams argued that the second tier of this structure was overpopulated and rather chaotic, I suggested (Little, 1996) that a common element of second floor constructs was their focus on personal action. These personal action constructs (or PAC units) comprised units such as personal projects, life tasks, current concerns, personal strivings, and possible selves (see Hooker, 2002; Krahé, 1992). I also suggested that there was another set of theoretical constructs lodged beneath traits at the base level. These are the analytic units of evolutionary psychology and are important to include because of the common aspirations of evolutionary and personality science to explore the distal origins of basic human nature. A prime example of a unit of analysis arising out of

evolutionary psychology is that of evolved psychological adaptations (EPAs) (Buss, 1991), propensities to act when prompted by immediate problems with a distant evolutionary provenance.

One of the critically important features of these four contemporary units of analysis is that they each serve as integrative devices allowing diverse processes and structures to come into common view. Although some of the research topics that can be integrated by these units overlap, many are distinctive.

Allport's second concern, what to do about situations, has also received detailed attention, although this is a rather more complex issue. It is helpful here to consider the environment hierarchically, ranging from micro-contextual influences of the moment, to the behavior settings of daily life, and the relatively stable macro-contexts within which humans live. Research on the micro-level, that of the specific situational contexts within which a person is temporarily situated, served as the locus for the protracted debate over whether traits showed *trans*-situational consistency. The major themes of that debate are now well known. For present purposes we should simply note that a working consensus has been reached between erstwhile trait and situationist protagonists. One contribution to reconciliation was the realization that a focus on specific acts allowed trait theorists, project analysts and environmental psychologists to address common issues—in essence to get our acts, together (Little, 1987). Craik (2000) provides an illuminating treatment of how video recordings of the enactments of a person's lived day can be alternatively construed through the lens of trait ascriptions, personal projects pursued, and behavior settings encountered.

Allport's third concern, the need for idiographic units of analysis, particularly those that capture the extended patterns of conduct in a person's life, has also received attention, particularly at the level of narrative accounts of lives and of PAC units. I believe a critical feature of a conceptual unit of analysis in personality science is that it facilitates the ascription of valid psychological predicates to people and these can be seen as analogous to linguistic parts of speech. Thus, traits are adjectives ("Charlene is lecherous"), projects are verbs ("Charles is lecturing"), and EPAs are contingent clauses. They potentially allow us to ascribe valid psychological predicates that are contingent upon some evocative context ("Charlene lectures" lecherously only when Charles is present). Life stories are forms of integrative discourse (Charlene often worried that her lecturing would be seen as lecherous. One day it was, by Charles and Cindy and what ensued was unforgettable).

I want to make the case that it is at the level of PAC units that a *double* integrative capacity can be discerned. By this, I mean that PAC units provide integrating structures *within* their level of analysis, for example exploring the pre-frontal motor cortex factors influencing goal pursuit, economic factors curtailing core projects, or social ecological forces making desired possible selves highly unlikely. But PAC units also provide a distinctive integrative capacity *between* levels with the other units we have been discussing. To accomplish this second integration we have developed derivative linkage units, rather like conceptual pseudopods, that enable us to link up with major units at other levels of personality. Two of these are described below.

Table 1
Personal projects as integrative units in personality science

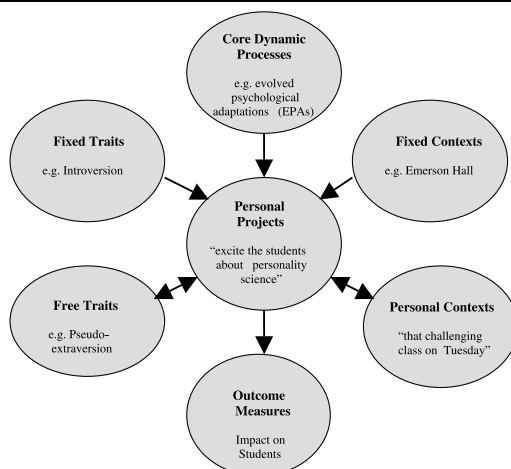


Table 1 provides a schematic representation of the above discussion and provides a specific vignette to illustrate how different conceptual units in personality can be integrated through personal projects and two of its derivative linkage units, free traits and personal contexts.

Assume Professor B is committed to the personal project of “excite my students about personality science.” This project, one of many being pursued by him, is influenced by relatively fixed traits (in this example, a high degree of Eysenckian introversion), which may incline him to be scrupulous in preparing for class, and likely to avoid too much stimulation prior to his lecture. The project itself is primarily enacted within Emerson Hall, which can be regarded as relatively fixed and stable. However, his perception of this classroom, the “personal context” he experiences, is populated by singular students with memorable names and idiosyncratic concerns. Some have possible selves as future personality psychologists. Professor B worries that these aspirations may become probable “shelves” if this Tuesday’s class on “Personality Science and the ARP Mission” doesn’t send them off clamoring for the latest issue of JRP.

But to achieve this project of “exciting the students,” he needs to engage fully with them, and to lecture with sufficient gusto as to undermine the soporific effects of Emerson Hall at 3:30 p.m. Therefore, to accomplish this project B consciously adopts the “free trait” of pseudo-extraversion. Free traits are strategic enactments that may be perceived by others as a traditional fixed trait, and which may actually run counter to the person’s “first nature.” They advance core projects, important roles and other commitments (Little, 2000a, 2000b). As depicted by the two-way arrows between projects, free traits and personal contexts, we posit that projects have a direct effect upon each, as well as being affected by them.

Two other blocks are depicted in the diagram. We assume that there is a set of core dynamic processes or propensities to act that will be evoked in response to

various contextual cues. These may be psychodynamically relevant needs relating to early loss or, as in the present example, EPAs. For example, in the present scenario, if Professor C strode in and started taking notes, it may evoke in Professor B an EPA of “maintaining status.” The fact that another EPA, “get along with my students,” may also be salient makes the enactment of the project more complex. Both C and the students may see B’s Tuesday’s lecture as rather bizarre.

The final block of concepts is concerned with the outcome measures used in personal project research, typically indices of well-being and of successful adaptation or achievement. Human flourishing is hypothesized to be contingent upon the sustainable pursuit of core projects. Both internal self-regulatory processes and external social ecological management are central to sustainability. In the present example, the outcome measure happens to be the long-term impact the professor has on the students in the class. A relevant operationalization of this might be how many students do end up in personality science and are actually reading this article.

We should also note that when well-being is examined, we posit that protractedly acting out of character, as B may be doing in this example, is likely to extract autonomic costs. Unless there are restorative niches available in which one’s “first nature” can be indulged, we predict a toll in emotional and physical health. It should be noted that B, a first nature Eysenckian introvert, has found that retiring to the men’s room after an overly arousing lecture is sufficient to regain his optimal level of neo-cortical arousal. He often puts his feet up to avoid detection from wayward talkative people, particularly if they are extraverted contrarians. But today is a worst case scenario: Professor C is in the next stall and shouts “Remember you are conceptually confused.” B’s rejoinder, written on a file card and slipped under the stall, reads: “I have no idea who you are, but if you are talking about personality science, we may have been confused at mid century, but considerable clarity has been achieved in the interim. So don’t confuse confusion with complexity.”

4. Issue three (methodological): Foundational criteria for personality assessment

Are we methodologically muddled? We have argued that conceptual development has advanced in directions that would be concordant with Allport’s view of the kinds of units we should employ in personality research. But conceptual units that remain refractory to assessment and measurement are going to be problematic. Despite our conceptual complexity we need methodological clarity.

For each of the integrative units different sets of measurement criteria need to be met. Assessment of EPAs is perhaps the most eclectic and least systematic of the integrative units, relying largely on questionnaire or experimental data that answer specific questions about particular EPAs, but not yet designed to chart the full set of EPAs that might operate within individuals, either in terms of normative or idiographic profiles (see *Cervone, 2000*). Assessment of narrative units are primarily, although not exclusively, qualitative in nature but are increasingly being integrated with quantitative analysis. Trait assessment, also, is flourishing, and can fairly be regarded as the most methodologically advanced of the different units of analysis.

Table 2
Assessment and measurement criteria for PAC units

Major assessment themes	Measurement criteria and brief explanatory notes adapted from Little (1989, 2000a)
Constructivist	Reflexive: Theoretical constructs apply with equal validity to researcher and P Personally salient: Elicits information deemed personally important by P Evocative: Assessment procedure is interesting and engaging
Contextualist	Ecologically representative: Provides information about contextual elements of P Temporally extended: Provides access to processes extended in time Social indicator potential: Assessment relevant to eco-settings (as well as P)
Conative	Systemic: Measurement assesses interrelationships among linked units of analysis Middle-level: Allows hierarchical analysis through initial middle-level elicitation Modular: Measurement systemboard allows ad hoc assessment modules to be used
Consilient	Idiographic and normative: Both individual and normative levels measurable Integrative: Affords access to cognitive, affective, conative, and behavioral processes Direct applicability: Units measured are tractable and capable of being changed

The assessment of PAC units, in particular personal projects, poses a very different set of measurement challenges (Little, 2000b). I believe PAC units are central to the personality science project because they provide a double convergence point where the scope and integration of other integrative units of analysis can meet. In addition they provide applied opportunities, to be discussed below, that will advance in a distinctive way our relations with practitioners and with social policy analysts. These aspirations, concordant with the earliest aspirations of our field, demand a methodology that is quite unlike others in personality science. Let me be clear: these measurement criteria are not expected to apply to all levels or domains of personality science, but for PAC units and those that deal with the living verbs of our life sentences they are critical.

Personal projects researchers have developed methodological tools that reflect twelve foundational criteria. Table 2 provides a brief characterization of each of these criteria as well as the overarching themes under which they are subsumed that stress the synoptic and integrative goals of personality science (Little, 1989, 2000a, 2000b).

The twelve criteria fall under four major assessment themes.

4.1. Constructivist assessment

Consistent with the issues related to epistemology, I believe that assessment devices need to be reflexive and to generate information that is personally salient to

the individual being assessed. I also have argued that much psychological assessment fails to engage individuals and are often exercises in protracted tedium. Particularly with advances in multi-media and computer graphics it is possible for assessment to be a truly evocative and exciting venture (Little, 2000b).

4.2. Contextualist assessment

Consistent with the conceptual aspirations elaborated earlier, our assessment methods should facilitate ecologically representative contextual features of daily life. These would include personally relevant social, physical, and cultural features of the person's current adaptive landscape. Given that both the person and the embedding context are dynamic systems, it is also critical that the methodology afford means for examining the temporally extended nature of human action.

4.3. Conative assessment

The rise of PAC units in personality and motivational psychology has represented a shift from a primarily cognitive orientation to a primarily conative one (Little, 1999). This entails focusing on the series of interrelated intentional actions that individuals are striving to achieve. Such pursuits form systems and our measurement operations can detect whether projects conflict with each other, are synergistic or relatively independent.

PAC units themselves are hierarchically organized. Personal projects, for example, are subsumed within larger pursuits, values and orientations, and projects in turn subsume more molecular acts through which they are accomplished. Eliciting information at the middle level of molarity affords us the opportunity to examine both the superordinate and subordinate features of human action. Depending on the nature of the projects being pursued there are dimensions (e.g., stressfulness, enjoyment, and perceived control) that might be relevant to a large range of pursuits, but we also require the modular flexibility to create new dimensions depending upon the project, the internal demands and the external affordances and barriers. Therefore the PPA assessment motherboard allows for (indeed, encourages) new, eco-system relevant dimensions to be adapted for studying particular populations.

4.4. Consilient assessment

This criterion is designed to ensure that our field's integrative goals are reflected directly in our measurement operations. "Consilient" assessment affords us the capacity to integrate different levels of measurement and different aspects of human conduct (e.g., cognitive, affective, and behavioral). Such assessment also affords opportunities to apply research directly to the enhancement of human well-being.

Personal projects analysis, for example, can be analyzed normatively by getting ratings averaged across a person's projects to create a vector of scores assessing numerous dimensions such as project stress or perceived control. The matrix design of PPA also allows us to do idiographic analyses, in which the relations between variables are

assessed within the individual case, across personal projects. The use of ad hoc dimensions and other assessment modules, allows us to tap into aspects of cognitive, affective and behavioral processes, advancing our desire for integrating aspects of human personality that are more typically assessed by different instruments.

Unlike some other integrative units, such as fixed traits, personal projects and other PAC units are more likely to be tractable. It may be difficult to change neuroticism or the stable hedonic tone of an individual; however with personal projects there is a possibility (not an inevitability) that change can occur. One can temporarily shelve a project, break it into more manageable subprojects, link it with narratives that imbue the pursuit with more meaning, or remove some of the contextual barriers that have made it seem impossible. In short, the continuously emerging methodological innovations at the second tier of personality are explicitly designed to advance our discipline's core aspirations (Little & Chambers, 2004).

Are C's concerns that we are methodologically muddled at all well founded? Depending on the level and domain of personality science we are exploring he may worry that some orthodoxies of classical measurement are being re-examined and occasionally, overturned. But each of the methodological changes, challenging as they are, has been warranted by the conceptual goals and empirical questions being explored. We intend to continue to muddle through.

5. Issue four (psychometric): Persons, error, and variants

Are we psychometrically timid? This is a strange charge because in many respects personality psychologists have been among the most prominent contributors to statistical and psychometric innovations. There has been a long and important tradition in individual differences research urging experimentalists to move beyond statistical models that see individual differences as error variance and to include valid individual difference measures in their designs, increasing both power and theoretical exploration. Personality researchers were pioneers in the development of multivariate techniques and among the most frequent adopters of new techniques such as hierarchical and growth modeling. Reis and Judd (2000) have edited a splendid compendium of psychometric and statistical advances in each of the major areas of personality (and social) psychology, including measurement issues at the trait and narrative levels. This volume should be placed within easy reach on the desk of every personality scientist (beside, or some would say on top of, the APA Style Manual). Even a cursory glance at the advances in trait and narrative analysis should convince C that our methodological advances are hardly timid.

Those of us working at the PAC unit level certainly have not been hesitant to explore psychometric issues and it will be helpful to clarify just what it is we are doing that is different on tier two. It seems fair to say that the major advances we are witnessing in most of the field deal with differences between individuals, where data generated from the individual person is still treated as error variance rather than aspects of a personal system. PAC units are concerned with both aspects of the measured person—with individual differences and with differing individuals: George and

Elizabeth, in some analyses, are seen as stray data points, error variance, or outliers. But for other research questions the distinctively singular Georgian and Elizabethan qualities of these individuals are a focal concern.

As mentioned above, personal project matrices are designed to facilitate the study of variables (e.g., perceived control and stress) within the single case as well as at aggregated levels and here is where a number of fairly daunting psychometric issues arise. Our approach to measurement is driven by the conceptual goal of capturing aspects of project pursuit and to explicate the conative architecture underlying such pursuit both at the individual and normative levels.

Unlike conventional measurement, many of our psychometric questions are open empirical ones rather than canonical constraints on what ought to be the case. For example, we know that personal project systems are dynamic phenomena. When individuals are asked on different occasions to rate their projects on the same dimensions these systems may differ in the actual projects being pursued or at least in the stage reached in pursuit of the project. It is entirely possible that overall stress level or degree of efficacy will vary widely as a function of the types of projects being pursued. We assume that this is rapid meaningful change, not randomness, and the stability and replicability of results with PPA attests to the validity of this assumption. However, over periods of several weeks, there is a moderately high degree of test–retest reliability with personal project dimensions measured at the normative level, with some dimensions equivalent to those obtained with trait measures. Note that this is an observed phenomenon of theoretical interest rather than a mandatory psychometric requirement that we wish to achieve. It just so happens that on some appraisal dimensions individuals differ reliably in terms of their overall project stress, efficacy or sense of meaning.

At the individual level, we are faced with another psychometric conundrum. Although it is very rare at the normative level to have identical scores on one or more occasions for all subjects, at the individual level we occasionally have cases where the same dimensional rating is given for each of the projects. Clearly this poses difficulties in attempting to calculate reliability (it is mathematically indeterminate). However, if we abandon the classical Pearsonian assumptions for the calculation of test–retest reliability and develop a measure that is based on the maximum possible variance for a set of ratings we can adequately address the issue of individual level stability. This we have done and [Gee \(1998\)](#) provides an excellent review of the early and continuing work on this issue.

I wish “Professor C” had been on Gee’s examination committee, because I had received advanced warning that our new colleague had planned to raise Simpson’s paradox with me before he had to trot off to the restroom. This paradox arises from the fact that the relation between any two variables may differ, indeed reverse, depending on the level (e.g., individual, aggregate) at which the variables are being measured. It is entirely possible that each person may have a negative relationship between perceived control and stress in their personal project system, but when aggregated normatively the correlation between these two variables may be positive. Again, we see isomorphism between levels as an empirical question rather than a necessary requirement, so we are open to there being different patterns of relationship

between individual level measurement and group or aggregate level measurement. However, Gee (1998), in an extensive examination of the psychometric foundations of personal projects analysis found that there was, in fact, a very high degree of isomorphism between individual and aggregate levels of measurement.

In other words, there seems to be a common personal project space in which dimensions such as stress and difficulty, or between control and efficacy are highly interrelated. From a conventional psychometric perspective this is a desirable state of affairs, as it suggests that the ubiquitous *mean* level differences we find are not attributable to differences in the structural relations among project dimensions. It reinforces the concept of a stable conative architecture that supports more than one level. Although there is strong evidence of isomorphism and a common project space, there are still identifiable individuals whose project dimensions are idiosyncratically organized. They are not error variance, but idiosyncratic variants. They can be identified and examined as particularly interesting exceptions to the more general pattern of shared perceptions of project attributes. They may be of clinical interest; they may splendidly creative.

A similar approach to individual level patterns that has developed independently of our own research is that of Mischel and his colleagues (e.g., Mischel, 2004; Mischel & Shoda, 1995) on the behavioral “signatures” of individuals who are shown to have highly stable idiosyncratic patterns of person-situation interaction styles. For example, a person may be aggressive with respect to challenging peers, but compliant with challenging authority figures. Neither the situational nor trait units alone are as fruitful as the stable idiosyncratic pattern of interaction between them.

A key difference between this extensive research program and personal projects research is that we are more concerned with molar level interactions between persons and situations in which the project serves as a “carrier” unit for features of both persons and situations. It will be intriguing to map the correspondences between the cognitive and conative architectures underlying patterned individuality, particularly if these can, in turn, be linked to evolved psychological adaptations, biological substrates, and environmental affordances. This assumes that evolutionary personality has conceptual space for an idiographic characterization of person environment interactions (an assumption that may or may not be specious.)

It is worth underscoring that the psychometric issues we have briefly reviewed flow from our underlying assumptions, conceptual, and methodological goals. If we did not take a credulous approach to individuals’ accounts of what they are like and how they are doing, we would be wary of using the kind of psychometric approaches we are recommending. If we felt that personality science were simply about individual differences we wouldn’t be wandering through the thicket of statistical paradoxes that arise when we take idiographic measurement seriously.

So, to C we can say that part of the rise of a flourishing personality science has been precisely the boldness of its psychometric and statistical innovations. Unless he has something in mind that he’s planning on telling us after breakfast, his charge of timidity is surely false. But C has two further concerns with which we must deal, and these can be dealt with more succinctly.

6. Issue five (social applicability): Roots and routes of ameliorative personality science

Are we socially ineffectual? C is not referring to the social skills of personality psychologists, an area where we might just edge out our social psychological colleagues, but in terms of having an impact on society, where, alas, the reverse is likely to be the case. Since its inception the academic study of personality has had a clear eye on the social and applied consequences of its scientific quest. Two fascinating histories, one about Henry Murray (Robinson, 1992) and one about Gordon Allport (Nicholson, 2003) document the roots of an applied, ameliorative and socially responsive personology.

Allport had a deep and long standing interest in attitudes, prejudice, and the enhancement of social relations. It is intriguing that his original course in Personality at Harvard, the first such course in academic psychology, was entitled “Individual Personality and Social Amelioration.” It is true that the course was originally offered in the Department of Social Ethics, but a deep concern with the amelioration of human suffering and the promotion of ethical conduct were hallmarks of Allport’s personology (Nicholson, 2003).

Murray was convinced that applied personology could advance the war effort in the nineteen forties through the establishment of assessment centers designed to identify those who would be able to handle the stress of being behind enemy lines, a tradition continued decades later with respect to creativity and other positive aspects of personality functioning at Berkeley’s Institute for Personality Assessment and Research.

With the emergence of a personality science we are creating informal alliances that both strengthen our identity as a pure science and forge collegial links with applied fields such as clinical psychology, health psychology, and organizational psychology. I think it is important to emphasize that once again our choices of units of analysis are pivotal to whether we are likely to go in one or the other direction or in both.

It is helpful to look at our four representative units of analysis to see what the applied implications for society might be. Evolved psychological adaptations and traits are essentially fixed features of the architecture of personality. Although there is some evidence that adult traits may be changed, such change is difficult. It is entirely possible to design social systems that take into account the research findings using evolutionary and trait units; however, enhancing human development using these units is likely to be rather oblique. That said, among the most exciting and contentious possibilities for personality change arise from the human genetic research and personality scientists are already making substantial contributions to this middle distance possibility (McGuffin, Riley, & Plomin, 2001).

Meanwhile, both personal projects and life narratives offer direct, tractable units of analysis; projects and life stories can be revisited, revised, and reformulated in ways that might benefit individuals and society. Fixed heritable traits and stable evolutionary adaptations may well set limits upon our capacities for sustained change, but what chances for change there are will arguably, for now, be discovered by research on the projects people pursue and the narrative accounts that they give of the shape of their lives. Personal projects have been increasingly adopted as units of analysis within clinical, health and rehabilitation settings where it is realized that

therapeutic compliance is effective only to the extent that it is harmonized with the patient's ongoing core projects (Little & Chambers, 2004).

Personal projects also have been invoked as units of analysis within philosophical discourse, particularly in moral and political philosophy, where projects are posited as units for a theory of human rights and as central to building alternatives to utilitarian ethics (Lomasky, 1984). The proposition that human flourishing is enhanced when individuals are engaged in the sustainable pursuit of core projects thus brings us into contact with philosophers, policy analysts, economists, and others concerned about human well-being and its assessment (Little, 1999). Given that personal projects serve as an excellent proxy variable for well-being (Omodei & Wearing, 1990) we might make some modest contribution to the efforts of those committed to enhancing the quality of human lives, both at the individual and societal levels (Little, Salmela-Aro, Nurmi, & Phillips, Forthcoming).

So, with respect to C's charge of our being socially ineffectual, I would answer that personality science is ingeniously Janusian. One face looks in the direction of pure science and linkages with cognitive neuroscience, evolutionary science and genetics. It also looks at the intriguing work on animal personality that has loped onto the intellectual scene, demanding, and getting attention (Gosling, 2001). The other face of personality science looks at liaison with applied areas, using tractable units of analysis that are very much in keeping with the ameliorative aspirations of Allport, Murray, and the first generation of personality scientists.

7. Issue six (institution building): The next generation of personality science

Although all of my answers to C reflect my personal training and idiosyncratic perspective, this section will be particularly shaped by my experiences and is offered as a speculative antidote to C's skepticism that we can create a sustainable personality science at the institutional level.

Of all the doubts C raises, this is perhaps the most serious. The scholarly challenges are already being met with great skill and commitment. How we situate (quite literally) personality science in our universities and research institutes poses some difficult questions, some having to do with the nature of inter or multi-disciplinary research, others having to do with university politics (West, 2002). How should we organize ourselves?

Cervone and Mischel (2002) make a strong case to follow the institutional route taken by cognitive science. In the best of these programs one sees literary theorists, philosophers, linguists, cognitive psychologists, and computer engineers in fruitful dialogue. In such programs, personalists and physicalists do not sit in silence and the varieties of knowing that emerge from their combined creative imaginations are changing the way we conceive of mental life. Similarly, personality scientists have the potential to change the way we conceive of human nature and the shape of lives and, in my experience, this aspiration is highly attractive to our students.

In my own experience teaching personality psychology, there are about equal numbers of students from the humanities, social sciences, and natural sciences who express interest in pursuing an expanded personality science. Bright students are asking this question and C, standing nearby raises his eyebrows waiting for an answer. At this point my advice is entirely ad hoc—I try to suggest PXE “fits” that work for particular students and try to point them toward programs with ecumenical leanings. But it would be wonderful to be able to refer students to full-blown personality science programs that were truly interdisciplinary. Such programs would certainly involve different departments and possibly different campuses, including some that are not in North America. I see some incipient possibilities already emerging, but their formalization as committed projects would be salutary.

So, C is right that at present we are relatively impoverished at the institutional level, but I sense this is changing and the reason for the change is the sheer intellectual excitement of being in a field that bridges the full spectrum of human inquiry from molecular genetics to cultural theory. We need creative funding ventures, training institutes and greater recognition of the achievements of our younger scholars in this developing science. We need to join forces with other interdisciplinary groups that share our vision. One of the more obvious is the Society for the Study of Human Development (SSHD) whose aspirations overlap considerably with ours. I anticipate that within a decade, personality science will assume a position of centrality in the undergraduate curricula of major colleges and universities. It is notable that both Allport and Murray, in their inimitable and contrasting styles, saw this potential centrality seven decades ago.

Colleague C, in his initial challenge that spawned this paper, said that our prospects are dim because our core projects are unsustainable. I believe our prospects are as dim as the twinkle in C’s eyes, which I see when I look in the mirror every other morning. In short, our prospects are improbably bright and, if we are tolerant of each other’s personalities, our Personality Science Project will not only be sustainable, it will flourish.

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