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The Practice of Psychological Science: Searching for Cronbach's Two Streams in Social–Personality Psychology

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The present research surveyed a group of editors and editorial board members of personality and social psychology journals to examine the practice of psychological science in their field. Findings demonstrate that (a) although personality and social researchers tend to use many of the same approaches, methods, and procedures, they nonetheless show average differences in each of these domains, as well as in their overarching theoretical aims and perspectives; (b) these average differences largely conform to social and personality researchers' stereotypes about each subgroup; (c) despite their methodological and philosophical differences, the 2 subgroups study many of the same research topics; and (d) the structure of social–personality research practices can be characterized as having 2 independent factors, which closely correspond to L. J. Cronbach's (1957) correlational and experimental "streams of research."

Keywords: research methods, personality psychology, social psychology, stereotypes

> I shall discuss the past and future place within psychology of two historic streams of method, thought, and affiliation which run through the last century of our science. One stream is *experimental psychology*; the other, *correlational psychology*. Dashiell optimistically forecast a confluence of these two streams, but that confluence is still in the making. Psychology continues to this day to be limited by the dedication of its investigators to one or the other method of inquiry rather than to scientific psychology as a whole. (Cronbach, 1957, p. 671)

In his 1957 American Psychological Association presidential address, the eminent educational psychologist Lee Cronbach made a distinction between "two streams" of scientific psychology: *experimental* and *correlational*. Cronbach's use of his presidential address to target this issue reflects the importance with which it was imbued at the time. Many researchers, across the various domains of psychological science, were grappling with questions about the relative merits of these two streams or "disciplines" and about whether they should become more integrated.

Fifty years later, Cronbach's (1957) distinction may appear to represent the state of the field today. In his address accepting the 2007 American Psychological Association Award for Distinguished Scientific Applications of Psychology, Peter Bentler commented that "Cronbach's hope has not progressed much." However, there has been little systematic examination of the extent to which Cronbach's streams have become more integrated. In the present research, we assess the status of Cronbach's disciplines within contemporary social–personality psychology.

Conceptually, the split between Cronbach's (1957) streams transcends methodological preferences and is considerably broader than a simple division between researchers who conduct experiments and those who search for correlations. Rather, the two streams characterize almost every aspect of the research endeavor. According to Cronbach, the two approaches differ in their "philosophical underpinnings, methods of inquiry, topical interests, and loci of application" (Cronbach, 1957, p. 671). However, Cronbach also conceptualized the two approaches broadly to include the research designs, measures, and statistical analyses a researcher uses; the processes and causal factors he or she views as responsible for effects sought and found; and the ways in which he or she evaluates findings (see Table 1). We have adopted Cronbach's labels of *experimental* and *correlational* to identify the two streams and to refer to the full range of methods, statistics, research designs, and philosophical approaches that define each of the streams. Table 1 provides a complete portrait of each stream, based on Cronbach's original conceptualization and our extrapolation to new methods and procedures. It is important to note that although we use Cronbach's labels, we, like him, do not intend to imply that either stream can be characterized solely as research guided by the use of a correlational approach or by an experimental approach.

Most social–personality researchers today would likely agree that the concepts, methods, and approaches of both the experimental and the correlational streams of thought are important and, in fact, essential to a complete program of research; both have contributed enormously to the current state of knowledge in psychological science. Yet, as Cronbach (1957) noted, historically, the two streams have been largely split, despite general agreement that they represent mutually beneficial or compatible ways of doing research. In many research areas, this split has not been characterized by antagonism; in fact, individuals working within each

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Table 1
Overview of the Two Streams of Psychology

Variable	Correlational stream	Experimental stream
Research design/approach	Correlational Longitudinal Psychobiographic/case study Twin/adoption study	Dyadic/group interaction Experimental Quasi-experimental
Statistical/data analytic procedures	Correlation Convergent/discriminant function analyses Cluster analyses Factor/principal components analyses Growth-curve modeling Item response theory Multidimensional scaling Multiple regression Partial correlation Reliability analysis Structural equation modeling Time-series analysis	Analyses of variance *t*-test
Assessment methods/measures	Autonomic nervous system assessment Experience sampling Hormone levels Informant report Molecular genetics Narrative/open-ended questionnaires Self-report scales Structured interviews	Behavioral observation Behavioral response Implicit measures Judgments of groups/nations/cultures Memory tasks Reaction-time measures
Type of validity emphasized	External (generalizability and mundane realism)	Internal
Theoretical approach to research	Tend to seek effects that are consistent with common sense Emphasis on cross-situational consistency of behaviors, thoughts, and feelings	Tend to seek counterintuitive effects Emphasis on influence of situations on behaviors, thoughts, and feelings

Note. The research practices listed here are inferences based on Cronbach's (1957) description of the two streams. The classifications are fairly rough, because many research designs, statistical procedures, and assessment methods cut across the two streams; in those cases, we assigned the given research practice to the stream with which it seems most closely aligned.

stream typically respect and admire the work done by those in the other stream. However, these individuals may not communicate or interact across streams as much as they might like, or as much as Cronbach would have liked. Furthermore, in some areas there has been, at times, direct antagonism between the streams, and questions raised about the importance and value of research conducted in the "opposing" stream (e.g., Krueger & Funder, 2004; Ross & Nisbett, 1991). These debates typically hinge on such issues as the importance of internal versus external validity; which methods are best suited for making causal inferences; the relative contributions of stable factors versus unstable contextual events in predicting behavior; and the importance of approximating real-world processes versus maintaining a high level of experimental control, in a research setting.

The distinction between the two streams permeates all domains of psychological science, albeit to different degrees. To give a few prominent examples, within clinical psychology, experimental stream researchers tend to manipulate the presumed causal influences on the etiology and maintenance of psychiatric disorders, whereas correlational stream researchers are more likely to conduct longitudinal and epidemiological studies aimed at identifying the predictors and consequences of psychiatric disorders. Clinicians have, in fact, debated the utility of studying psychopathologies such as depression by seeking predictors in real-world patient populations versus conducting "analogue" experiments on individuals (typically undergraduates) who score high but in the normal range on measures of depressive affect (Crits-Christoph, Wilson, & Hollon, 2005; Vredenburg, Flett, & Krames, 1993; Westen, Novotny, & Thompson-Brenner, 2004).[1] This distinction is also evident in health psychology, where correlational stream researchers examine the way chronic dispositional variables influence long-term health outcomes in real-world contexts (e.g., Smith, 2006) and experimental stream researchers assess on-line physiological or neural responses to experimental manipulations (e.g., Dickerson & Kemeny, 2004). In developmental psychology, the two main subareas—cognitive and socio-emotional development—map fairly closely onto the two streams, with cognitive developmentalists generally favoring experimental studies and social developmentalists generally favoring correlational (e.g., longitudinal) studies. Although experimental stream researchers gen-

[1] In each of these cases, it is important to note that the researchers we refer to do not exclusively conduct one type of research or the other; in fact, one of the goals of the present research was to determine how clearly defined the distinction between the two approaches is, and what proportion of researchers in the field of social–personality psychology may best be characterized as "hybrids."

erally dominate cognitive psychology, a small group of cognitive researchers who practice "cognitive ethology" seek to openly address the distinction between mental processes operationalized as responses to laboratory manipulations versus those that occur in the real world (Kingstone, Smilek, & Eastwood, 2008). Along with earlier cognitive researchers such as Broadbent (1991), Neisser (1976, 1991), and Bruner (1990), these authors assert that researchers should question some of the assumptions underlying the experimental approach (e.g., that manipulated variables represent real-world phenomena) and conduct complementary studies on everyday "acts of meaning." At the same time, others have noted that laboratory studies produce important knowledge about mental processes such as attention and memory, regardless of their external generalizability (Mook, 1983).

In some disciplines the two streams coexist without competing, and researchers who identify with one stream or the other faithfully support and respect researchers who represent the other. In other disciplines, researchers from the two streams may clash over scarce resources such as academic positions, grant funding, power within a department, and top graduate students who, in turn, often feel that they must choose with which stream to align. In general, the presence of at least some division between the two streams is taken for granted in many areas of psychological science, and certainly in social–personality psychology. Yet, an important question underlies this apparent fact: To what extent is the split *real*? Is the distinction between the two streams an accurate representation of contemporary research in social–personality psychology, or is it a stereotyped, mythologized distinction that allows for quick and easy conceptualizations of different kinds of research but that does not characterize actual researchers in terms of the work they do? To what extent do personality and social psychologists truly embody the correlational and experimental streams, respectively? And to what extent are they in fact more likely to represent a middle-ground perspective, making use of whatever methods, approaches, and theoretical principles best apply to their research, regardless of any "official" stream associations? In other words, have the streams finally merged, as Cronbach (1957) hoped, or is most research still conducted within one stream or the other?

The Present Research

The present research addresses these questions empirically by examining the research practices of social–personality psychologists. In general, researchers within the field tend to assume that personality psychologists work within the correlational stream (defined broadly as described previously and in Table 1), whereas social psychologists work within the experimental stream (again defined broadly as in Table 1). There are, of course, many exceptions—researchers best characterized as "social–personality psychologists" rather than "social" or "personality" psychologists. However, the split between the streams in social–personality research seems self-evident; in fact, to some extent, personality and social psychology can be viewed as two separate areas of psychology, with their own separate textbooks and courses, rather than as a single area with two general subemphases that vary (across researchers, departments, professional associations, and literatures) in the extent to which they are connected. Furthermore, personality and social psychology each have major connections with other areas of psychology, and for some researchers these connections may be more relevant or self-identifying than their connections with each other. For example, many social psychologists feel that their "secondary" classification is cognitive psychology, not personality, and many personality researchers view their secondary classification as clinical or developmental psychology, not social. Nonetheless, given that personality and social psychology have historically been connected, exist as a single area in many psychology departments, share their largest professional association (Society for Personality and Social Psychology) and their most prominent flagship journal (*Journal of Personality and Social Psychology* [*JPSP*]), and exist as a single division (Division 8) in the American Psychological Association, we believe it is appropriate to consider social–personality psychology a single distinct area of psychology that consists of at least two subareas.

In the present research, we recruited a group of prominent social–personality researchers and asked them to complete an extensive survey about the methods, statistics, and research designs they use, as well as the causal processes and psychological phenomena they seek to understand. We then asked them to report the same information for the "typical personality psychologist" and the "typical social psychologist," in order to assess stereotypes about the research practices of these groups. In this way, we followed Judd and Park's (1993) recommendations for studying stereotypes and assessing stereotype accuracy: collecting data from two different subject groups rating two different target groups, which are identical to the subject groups, on a set of stereotypic and counterstereotypic attributes. We also asked participants to identify the extent to which they viewed themselves as personality and social psychologists. We thus were able to directly address three important questions: (a) How do personality and social psychologists differ in research methods, designs, analyses, theoretical assumptions, research topics, and general approaches to research, and to what extent do these differences map onto Cronbach's two streams?; (b) do the differences between personality and social psychologists converge with stereotyped notions of the two groups (i.e., are the stereotypes accurate)?; and (c) to what extent do the various methods and statistical procedures used by personality and social researchers reflect the two streams identified by Cronbach (1957; i.e., do the two columns of Table 1 "hang together" empirically to form two distinct factors)?

The data we collected also allow us to address a number of subsidiary questions, such as: Do any observed differences in the methods used by personality and social psychologists reflect differences in the causal processes they study, or do they investigate many of the same topics but use distinct methods to do so? Are particular causal processes more likely to be studied using the approach of one stream or the other? Are there research areas or researchers for whom the two streams seem to be well-integrated, with neither approach predominating? Finally, we also examined the extent to which the survey data converged with content coding of the actual statistical methods used in published *JPSP* articles; these data help support the validity of the survey results and address the substantive question of whether researchers provide accurate reports about their research practices.

Method

Participants and Procedures

In 2006, we attempted to recruit all individuals who were serving as editors or editorial board members of several leading journals in social–personality psychology: *European Journal of Personality* (*EJP*), *European Journal of Social Psychology* (*EJSP*), *Journal of Experimental Social Psychology* (*JESP*), *Journal of Personality* (*JP*), *Journal of Personality and Social Psychology* (*JPSP*), *Personality and Social Psychology Bulletin* (*PSPB*), and *Personality and Social Psychology Review* (*PSPR*).[2] These individuals were chosen for several reasons. First, they are very likely to conduct personality and social research and to perceive themselves as personality or social psychologists (or both). Second, these individuals are typically among the most productive researchers working the field, so they are collectively responsible for a large body of social–personality research. Third, members of editorial boards cover a broad range of career stages, providing a sample that includes individuals who are at the early, middle, and late stages of their scientific careers. Fourth, members of editorial boards decide what is (and is not) accepted for publication in social–personality journals, and thus are the "gatekeepers" of social–personality psychology. These individuals are highly knowledgeable about what constitutes social–personality research; in fact, one could argue that they set the standards for the field. Fifth, including editors from these particular journals allowed us to equate the sample across personality and social psychology and ensure that both groups were fairly equally represented.

We contacted 407 editors and editorial board members by e-mail and told them, "The goal of the survey is to learn more about the kinds of research conducted by prominent personality and social psychologists." If they were interested in participating as volunteers, they were directed to an internet address where they could complete the survey. Of those contacted, 39% ($N = 159$; 71% male, 29% female; median age = 45 years, range = 30–70) agreed to participate.[3]

Survey Questionnaire

To construct the survey, we first queried a focus group of 10 leading personality and social researchers about methodological features that could be used to describe the prototypical personality and social approaches to conducting research. We supplemented their responses by reviewing recent journals, edited volumes, and textbooks to identify the full range of methods used. This led to an initial pool of survey items, which we sent to a second group of researchers in order to solicit feedback on ambiguities, omissions, and redundancies. On the basis of their feedback, we eliminated and rephrased some items and added new items to fill in gaps. In general, our goal was to ensure a comprehensive and representative sampling of methods and approaches, which would not be biased toward personality or social research.

This procedure led to the development of a survey that included eight sections and more than 100 items (the complete survey is available online at http://ubc-emotionlab.ca/jltracy/wp-content/images/2008/04/survey.pdf). In Section 1, respondents were asked to rate the frequency with which they used each of 12 research designs and methodological approaches in their research (e.g., experimental, correlational, longitudinal). In Section 2, respondents rated the frequency with which they used each of 17 assessment methods/measures (e.g., self-report, informant report, behavioral observation). In Section 3, respondents rated the frequency with which they used each of 21 statistical procedures and data analytic strategies (e.g., analysis of variance [ANOVA], correlation, factor analysis). All of these ratings were made on a 7-point scale, ranging from 1 (*never*) to 7 (*always*), with 4 (*sometimes*) as the midpoint of the scale.

In Section 4, respondents rated the extent to which their "research focuses on understanding each" of 20 processes or factors (e.g., affective, cognitive, cultural); these ratings were made on a 7-point scale ranging from 1 (*not at all*) to 7 (*very much*), with 4 (*somewhat*) as the midpoint. In Section 5, respondents were asked to read a list of 36 research topics and check each topic that they examine in their research; a checklist response format was used here so that participants were not burdened with providing frequency ratings for 36 different topics. In Section 6, respondents were asked whether they are "more likely to seek effects that are consistent with common sense" or those that are "counterintuitive"; they were forced to choose one of these two options. In Section 7, respondents were asked to rate the importance of each form of validity: construct validity (i.e., ensuring that the construct of interest is the construct that is assessed or manipulated), internal validity (i.e., ensuring that an experimental variable/treatment is the cause of effects found), external validity as in generalizability (i.e., ensuring that effects found generalize to other studies or samples), and external validity as in mundane realism (i.e., ensuring that manipulations or operational definitions approximate real-world behaviors/processes). In Section 8, respondents were asked to rate the extent to which each of the following two perspectives characterizes their overarching theoretical perspective: "Individuals' behaviors, thoughts, and feelings tend to be consistent across situations and over time" and "Situations drive most behaviors, thoughts, and feelings." Respondents also rated the extent to which they study "issues and topics related to the field of personality psychology" and "issues and topics related to the field of social psychology"; these two scales correlated ($r = -.53$, $p < .05$). Ratings in Sections 7 and 8 were made on a 7-point scale ranging from 1 (*not at all*) to 7 (*very much*), with 4 (*somewhat*) as the midpoint of the scale.

After completing these sections in reference to their own research, respondents were asked to complete Sections 1–8 a second and third time as the "typical" personality and social psychologist would. These parts of the survey assessed respondents' stereotypes about each area. The order of these two parts was counterbalanced across respondents, and respondents were encouraged to complete the first part, regarding their own research practices, even if they

[2] The second and third authors (Richard W. Robins and Jeffrey W. Sherman) belong to this group of editors and editorial board members but were excluded from the sample.

[3] This response rate is comparable to rates typically found in survey research relying on mail (20%) and telephone responding (60%; Visser, Krosnick, & Lavrakas, 2000). Given that internet responses are more convenient than mail-in responses but that it is easier to refuse to participate over e-mail than phone, it is not surprising that the response rate found here falls in between these typical rates. It is also noteworthy that surveys with lower response rates may be more predictive of outcomes than surveys with higher response rates (Visser, Krosnick, Marquette, & Curtin, 1996).

did not have time to complete the rest of the survey. Considerably more participants (159) completed the first part of the survey than the latter two parts (73 for the typical personality psychologist, 80 for the typical social psychologist).

Content-Coding of Statistical Procedures Used in Published Articles

To obtain a more objective measure of social–personality research practices, we content-coded the statistical procedures used in articles published in the field's flagship journal, *JPSP*. For each of the 164 articles published in *JPSP* from September 2004 through December 2005, an advanced undergraduate research assistant, blind to the goals of the study, coded whether each of the 21 statistical procedures included in the survey was used. Jessica L. Tracy also coded all articles in three of the issues ($n = 31$ articles) and discussed codes for these articles with the rater until consensus was reached. Prior to reaching consensus, kappa reliabilities averaged .82 (range across items = .47 to 1.00). After discussing any discrepancies and reaching consensus, the rater coded the remaining articles himself. Given that *JPSP* is explicitly divided into social (i.e., *Attitudes and Social Cognition* [*ASC*]) and personality (i.e., *Personality Processes and Individual Differences* [*PPID*]) sections, comparing the frequency of use of each procedure between sections allows us to determine whether statistical procedures differ between the two subareas. The middle section of *JPSP*, *Interpersonal Relationships and Group Processes* (*IRGP*), includes research that fits within both domains so we had no predictions for whether articles published in this section would be more personality- or social-psychology oriented.

Classification of Respondents as Personality or Social Researchers

We used several criteria to classify respondents as personality or social psychologists. First, respondents were classified as personality psychologists if they served as editors or editorial board members for *EJP*, *JP*, or *JPSP: PPID*. Respondents were classified as social psychologists if they served as editors or editorial board members for *JESP*, *EJSP*, or *JPSP: ASC*. Forty-two respondents were not classified based on their journal affiliation because they served either on both personality and social journals or only on the editorial boards of *PSPB*, *PSPR*, and *JPSP: IRGP*. Instead, these respondents were classified based on the extent to which they reported studying "issues and topics related to personality psychology" and "issues and topics related to social psychology" (i.e., the research topics variables). All individuals with scores greater than the midpoint of the scale (4) on the "social psychology" variable and less than the midpoint (4) on the "personality psychology" variable were classified as social psychologists; all individuals with the reverse pattern were classified as personality psychologists. This allowed us to classify 22 additional participants. We opted not to apply further criteria to classify the remaining 20 respondents (13%) in order to maintain the distinctiveness of the two categories. Overall, 46% of the sample ($n = 74$) were classified as social psychologists and 41% ($n = 65$) were classified as personality psychologists.

We verified the validity of this classification scheme by comparing scores on the personality and social research topics items. For social topics, the social group had a mean of 6.7, whereas the personality group had a mean of 3.8, $t(137) = 12.16$, $d = 2.28$, $p < .05$. For personality topics, the personality group had a mean of 6.1, whereas the social group had a mean of 2.9, $t(134) = 13.18$, $d = 2.27$, $p < .05$. These differences were about as large when we removed the data from the 22 participants who had been classified based on their responses to the research topics variables; means for social topics were 6.8 (social group) and 3.9 (personality group), $t(115) = 10.71$, $d = 2.37$, $p < .05$, and means for personality topics were 6.1 (personality group) and 3.1 (social group), $t(113) = 10.68$, $d = 2.01$, $p < .05$.

The ratio of men to women was approximately the same in the personality (75% men, 25% women) and social (69% men, 31% women) groups, $\chi^2(1) = 0.40$; similarly, gender was not significantly correlated with the degree to which a researcher reported studying personality ($r = .05$, *ns*) or social ($r = .08$, *ns*) topics. The two groups also did not differ significantly in age (*M*s = 47 vs. 45, $t = 1.17$, *ns*), and age was not correlated with personality ($r = –.01$, *ns*) or social ($r = –.11$, *ns*) research topics.

Results

Similarities and Differences in Research Practices

Research designs and approaches. As can be seen from Figure 1, personality and social researchers differed in nearly half of the major research designs examined. Nonetheless, these differences were relative rather than absolute. For example, social researchers more frequently use experimental designs and personality researchers more frequently use correlational designs, but both groups use both designs more frequently than they use most other designs. Furthermore, as can be seen from the frequencies of respondents in each group who *ever* use each design (Table 2), certain designs, such as correlational, are used at least occasionally by all researchers in both groups. In addition, the mean frequency of use for several designs—cross-cultural, cross-species, field study, quasi-experimental, and psychobiographical—did not differ between the groups.

To complement these group comparisons, we correlated respondents' ratings of the extent to which they study topics related to personality and social psychology with frequencies of using each design (see Table 2). Consistent with the mean differences, results showed that individuals who described their research as focusing on issues central to personality psychology are more likely to use correlational, cross-sectional, and longitudinal designs. These individuals are less likely to use experimental designs, despite the high overall mean for experimental research. Thus, experimental methods are frequently used by personality psychologists, but those individuals who use them most frequently view their research as less strictly about personality topics. Conversely, individuals who describe their research as focusing on social psychology are more likely to use experimental and dyadic/group interaction designs and less likely to use correlational designs.

Statistical procedures and data analytic strategies. As Figure 2 shows, personality and social psychologists differed in the frequency with which they use most statistical procedures. Although social researchers use ANOVA and tests of mediation more frequently, personality researchers use almost every other procedure more frequently, suggesting that personality researchers use a wider range of statistical techniques to analyze their data. How-

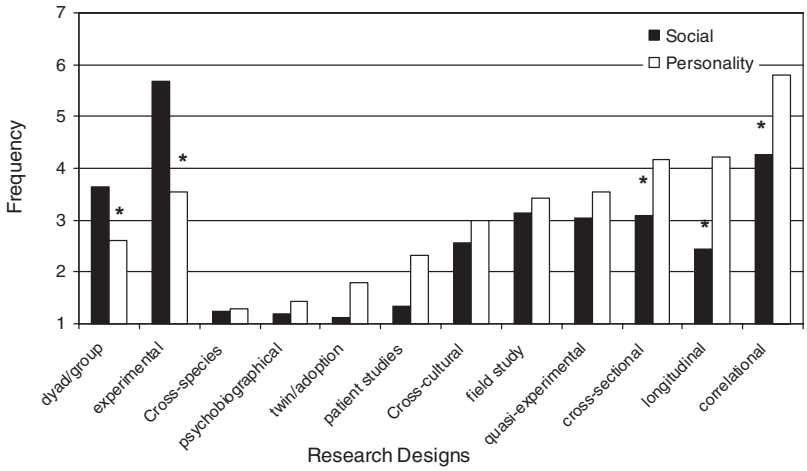

Figure 1. Research designs used by personality and social psychologists. $N = 139$; Cohen's *d*s (and, in parentheses, common language effect sizes) for significant effects were 0.61 (67%) for dyadic/group approaches, 1.46 (85%) for experimental approaches, 0.71 (69%) for cross-sectional approaches, 1.16 (79%) for longitudinal approaches, and 0.75 (86%) for correlational approaches. $^{*}p < .05$.

ever, despite the group differences, both personality and social researchers very frequently use *t*-tests, multiple regression, ANOVA, tests of mediation, correlations, factor or principal components analyses, partial correlations, and reliability analyses. In fact, over 90% of respondents in both groups reported using each of these procedures more frequently than "never" (see Table 2). As can be seen from Table 2, the correlational analyses generally mirror the pattern of mean differences.

We next compared the extent to which each statistical procedure was used in studies published in the three sections of *JPSP*. We first compared the frequency with which each analysis was used in the *ASC* and *PPID* sections (see Figure 3). Several differences emerged: ANOVA and mediation/path analyses were used more frequently in the *ASC* section, *t*s(119) = 4.45 and 2.05; *d*s = 0.82 and 0.43, respectively; both *p*s < .05; whereas correlational, convergent/discriminant validity, factor/principal components, hierarchical linear modeling (HLM), reliability, and multiple regression analyses were used more frequently in the *PPID* section, *t*s(119) = 2.86, 1.81, 2.39, 3.24, 4.77, and 1.77; *d*s = 0.55, 0.48, 0.37, 0.52, 0.80, and .037, respectively; all *p*s < .05, one-tailed for convergent/discriminant validity and multiple regression.[4] These findings replicate those found between personality and social researchers in the survey results, suggesting that respondents reported accurately on the statistical procedures they use in their research. Furthermore, as can be seen from Figure 3, these differences were again relative; articles in both sections tended to rely on a similar set of statistical procedures.

It is also noteworthy that although all of the differences found through content coding of the *JPSP* articles held in the survey responses, two of the differences that emerged in the survey responses did not replicate in the content coding: personality researchers' greater reporting of growth-curve modeling and structural equation modeling (SEM). The failure to replicate these differences suggests that personality researchers might believe that they use these statistical methods more frequently than they actually do (the content-coding analyses revealed very low levels of these analyses overall, making it unlikely that social researchers underestimated how frequently they actually use them), or that personality researchers publish their SEM and growth-curve-modeling-based articles in non-*JPSP* journals, such as developmental journals.

We next compared each of these two sections with the *IRGP* section. We expected to find fewer differences than in our *ASC* versus *PPID* comparisons because researchers who study relationships and group processes tend to be both personality and social focused. In fact, fewer differences emerged, but those that did were informative. Compared with the *ASC* section, studies reported in the *IRGP* section used fewer ANOVAs but more multiple regression and reliability analyses, *t*s(116) = 2.24, 2.34, and 2.73; *d*s = 0.43, 0.45, and 0.52, respectively; all *p*s < .05, one-tailed for ANOVA; see Figure 3 for means. This suggests that *IRGP* studies tended to use more correlational stream analyses than did *ASC* studies and that *ASC* studies used more experimental stream analyses than did *IRGP* articles. In contrast, compared with the *PPID* section, studies reported in the *IRGP* section used more ANOVAs, tests of mediation/path analyses, and *t*-tests, whereas studies reported in the *PPID* section used more HLM, *t*s(113) = 2.32, 2.46, 2.62, and 1.84; *d*s = 0.35, 0.50, 0.41, and 0.22, respectively; *p*s < .05, one-tailed for HLM; see Figure 3. This suggests that *IRGP* studies tended to use more experimental stream analyses than did *PPID* studies and that *PPID* studies used more correlational stream analyses. Thus, the *IRGP* section fell between the other two sections in the extent of its correlational versus experimental stream orientation, at least in terms of statistical analyses used. It is also noteworthy that several statistical analyses did not differ

[4] We used a one-tailed significance test because these analyses directly replicate the group differences found in the survey data and because clear hypotheses can be made about the predicted direction of the group differences.

Table 2
Use of Research Designs, Statistical Procedures, and Assessment Methods by Personality and Social Researchers

Survey question	Percentage of personality researchers who ever use	Percentage of social researchers who ever use	*r* with personality research orientation	*r* with social research orientation
Research design/approach				
Correlational	100%	100%	.59*	−.51*
Cross-cultural	75%	76%	.08	−.07
Cross-sectional	95%	76%	.36*	−.26*
Cross-species	9%	11%	−.02	−.05
Dyadic/group interaction	64%	82%	−.14	.36*
Experimental	85%	97%	−.51*	.60*
Field study	82%	88%	.14	−.08
Longitudinal	94%	65%	.49*	−.46*
Patient study	52%	18%	.29*	−.43*
Psychobiographic/case study	18%	10%	.12	−.26*
Quasi-experimental	85%	86%	.03	.07
Twin/adoption study	23%	5%	.29*	−.34*
Statistical/data analytic procedure				
Analyses of variance	97%	100%	−.32*	.48*
Cluster analyses	68%	55%	.26*	−.26*
Computer simulations	34%	35%	.04	−.13
Convergent/discriminant validity	92%	78%	.48*	−.30*
Correlation	100%	100%	.45*	−.26*
Discriminant function analyses	58%	43%	.20*	−.34*
Factor/principal components analyses	100%	97%	.38*	−.25*
Growth-curve modeling	60%	18%	.29*	−.38*
Hierarchical linear/multilevel modeling	80%	69%	.28*	−.24*
Item response theory	40%	11%	.27*	−.39*
Mathematical modeling	34%	27%	.02	−.14
Mediational tests	92%	99%	−.12	.18*
Meta-analyses	58%	75%	.02	.01
Multidimensional scaling	36%	51%	.04	−.01
Multiple regression	100%	99%	.30*	−.12
Partial correlation	98%	93%	.34*	−.14
Power analyses	89%	83%	.11	−.22*
Reliability analyses	100%	96%	.33*	−.23*
Structural equation modeling	86%	82%	.22*	−.26*
t-test	100%	97%	.00	−.00
Time-series analyses	40%	30%	.16*	−.06
Assessment method/measure				
Autonomic arousal (ANS)	88%	40%	.07	−.10
Behavioral observation	55%	88%	.16*	−.06
Behavioral response	88%	92%	−.14	.35*
Experience sampling measurement	78%	45%	.25*	.18*
Hormone levels	66%	14%	.17*	−.30*
Implicit measures	36%	14%	−.20*	.23*
Informant report	60%	58%	.49*	−.36*
Judgments of groups/nations/cultures	41%	76%	−.35*	.31*
Judgments of self/others	98%	99%	.01	.12
Memory tasks	59%	90%	−.28*	.31*
Molecular genetics/DNA testing	25%	4%	.28*	−.32*
Narrative/open-ended questionnaires	72%	88%	.01	.08
Neuroimaging	28%	76%	.01	−.01
Reaction-time measures	59%	88%	−.22*	.33*
Self-report scales	100%	99%	.31*	−.20*
Structured interviews	75%	66%	.24*	−.36*
Other judgment tasks (e.g., of stimuli)	81%	89%	−.25*	.28*
Type of validity emphasized				
Construct validity			.13	−.09
External validity (generalizability)			.35*	−.28*
External validity (mundane realism)			.35*	−.26*
Internal validity			−.22*	.29*

Table 2 (*continued*)

Survey question	Percentage of personality researchers who ever use	Percentage of social researchers who ever use	*r* with personality research orientation	*r* with social research orientation
Processes/factors that underlie effects				
Affective processes			.12	.08
Cognitive processes			−.32*	.48*
Cultural factors			.05	.06
Developmental processes			.42*	−.40*
Dynamic processes			.15	.12
Evolutionary factors			.19*	−.07
Explicit/conscious processes			−.20*	.39*
Factors external to the person			−.20*	.31*
Factors within the person			.36*	−.11
Genetic factors			.40*	−.45*
Implicit/unconscious factors			−.25*	.32*
Intergroup processes			−.40*	.52*
Interpersonal processes			−.05	.37*
Motivational processes			−.10	.41*
Physiological processes			.13	−.10
Reinforcement processes			−.03	.09
Situational/contextual factors			−.29*	.48*
Social learning			−.02	.09
Stable dispositions			.66*	−.46*
Static processes			.21*	−.12
Philosophical perspective				
Seek counterintuitive (vs. consistent with common sense) effects			−.26*	.37*
Belief in consistency of behaviors, thoughts, feelings			.60*	−.48*
Belief that situation drives behaviors, thoughts, feelings			−.44*	.54*

Note. $N = 159$.
* $p < .05$.

across any of the sections: cluster analyses, growth-curve modeling, meta-analyses, partial correlations, and SEM.

Assessment methods. As Figure 4 shows, personality and social psychologists differed in the frequency with which they use most assessment methods. Once again though, most of these differences are relative, and there are certain methods that both groups use very frequently. For example, 98% of individuals in both groups use self-report measures and judgments of self/other at least some of the time; these two methods are, by far, the most frequently used forms of assessment (see Table 2). As Table 2 shows, the results from the correlational analyses show a similar pattern, but one interesting difference emerged. Although the two groups did not differ in the frequency with which they use self-report assessments, the use of self-reports was positively correlated with the extent to which a researcher identifies as studying personality topics and negatively with the extent to which he or she identifies as studying social psychological topics.

Types of validity emphasized. As can be seen from Figure 5, although both groups equally value construct validity, social researchers place greater importance on internal validity than do personality researchers, Ms = 6.53 vs. 5.73, $d = 0.68$, $t(136) = 3.92$, whereas personality researchers place greater importance on external validity than do social researchers, Ms = 5.45 vs. 4.64, $d = 0.61$, $t(136) = 3.52$ for generalizability; Ms = 5.21 vs. 3.85, $d = 0.81$, $t(137) = 4.68$ for mundane realism; both ps $< .05$. However, both groups rated internal validity as the most important type of validity after construct validity. In fact, despite the moderate to large effect sizes that emerged, there is also substantial overlap between the two groups in the importance placed on each form of validity. This can be seen from *common language effect sizes* (CLEs; McGraw & Wong, 1992), which provide an estimate of the probability that a randomly selected individual from Group A will be higher or lower on a given variable than a randomly selected individual from Group B. In the present case, 68 out of 100 times a randomly selected social researcher will place greater emphasis on internal validity than a randomly selected personality researcher, and 67 out of 100 times a randomly selected personality researcher will place greater emphasis on external generalizability than a randomly selected social researcher (the CLE for mundane realism is 72/100). In other words, personality researchers place greater emphasis on internal validity than do social researchers about one third of the time.

Similarities and Differences in Causes and Processes Believed to Underlie Effects

As can be seen from Figure 6, personality and social researchers differed in the extent to which they seek to understand most of the processes we asked about, but again, these differences tended to be relative. For example, both groups emphasize internal processes (i.e., factors within the individual), although personality researchers do so to a greater extent. Similarly, both groups emphasize

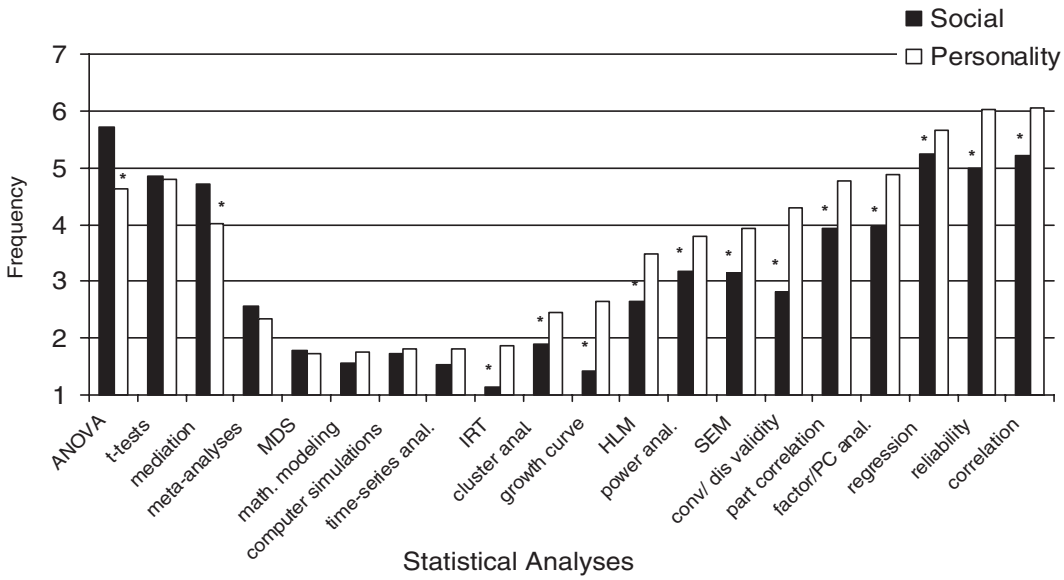

Figure 2. Statistical procedures used by personality and social psychologists. $N = 139$; Cohen's *d*s (and common language effect sizes) for significant effects were 0.89 (74%) for analysis of variance (ANOVA), 0.50 (64%) for mediation, 0.76 (70%) for item response theory (IRT), 0.44 (62%) for cluster analyses, 0.88 (73%) for growth-curve analyses, 0.47 (63%) for hierarchical linear modeling (HLM), 0.37 (60%) for power analyses, 0.48 (63%) for structural equation modeling (SEM), 0.89 (74%) for convergent/discriminant validity, 0.55 (65%) for part/partial correlations, 0.70 (69%) for factor/principal components (PC) analyses, 0.38 (61%) for regression, 0.72 (70%) for reliability, and 0.75 (70%) for correlations. MDS = multidimensional scaling. $^{*}p < .05$.

cognitive, explicit, external (i.e., factors outside the individual), interpersonal, motivational, and situational processes, but social researchers do so to a greater extent. In addition, two highly emphasized processes, affective and dynamic, did not differ between the groups. The largest differences emerged for intergroup processes (greater for social), stable dispositions (greater for personality), and developmental processes (greater for personality). A final noteworthy finding is the difference that emerged in implicit processes, which was greater for social researchers, despite the fact that social researchers also focus more on explicit or conscious processes, suggesting that social researchers may pay greater attention to levels of consciousness (i.e., whether processes occur explicitly or implicitly). The correlational analyses were again highly consistent with the mean differences (see Table 2).

Similarities and Differences in Research Topics Studied

In contrast to the many differences reported in the previous sections, personality and social researchers did not substantially differ in the specific topics they tend to study.[5] Specifically, the two groups were equally likely to report studying aggression, attribution, brain functioning, clinical disorders, creativity, cultural psychology, education/achievement, emotion, evolutionary psychology, gender/sexuality, implicit processes, intelligence/cognitive ability, interpersonal attraction, judgment and decision making, motivation, nonverbal behavior, personality traits, persuasion, political psychology, positive psychology, relationships, self-concept, self-esteem, self-regulation, social development, and statistics (see Table 3 for the percentage of respondents in each group who study each topic). As Table 3 shows, several differences did emerge, but these were primarily in domains that fall under the explicit definition of "personality" and "social" processes (e.g., personality development, social cognition). Thus, personality and social researchers tend to study many of the same topics. It is important to note, however, that because we used a checklist method rather than frequency ratings, these similarities pertain only to whether researchers from the two groups study these topics at all, not the frequency with which they study them. It is possible, therefore, that personality and social researchers differ in how frequently they study each of these topics.

To address this issue, we conducted a secondary set of analyses on the research topics items. We identified subsamples of personality and social researchers who reported studying the same topic and tested whether they differed in how frequently they used correlational versus experimental designs and correlations versus ANOVA statistical analyses. These analyses more directly address the question of whether personality and social researchers who study the same topic (e.g., self-esteem) do so using different approaches and methods. We conducted these analyses on all research topics that showed no group differences and, to ensure large enough sample sizes, on only those topics that were selected by at least 25% of each group: attribution, cultural psychology, emotion, gender/sexuality, implicit processes, motivation, relationships, self-concept, self-esteem, and self-regulation (see Table 3).

[5] On average, there was no difference between the number of different content areas personality and social researchers reported studying ($M = 11$ out of 35 for personality researchers and 12 out of 35 for social researchers).

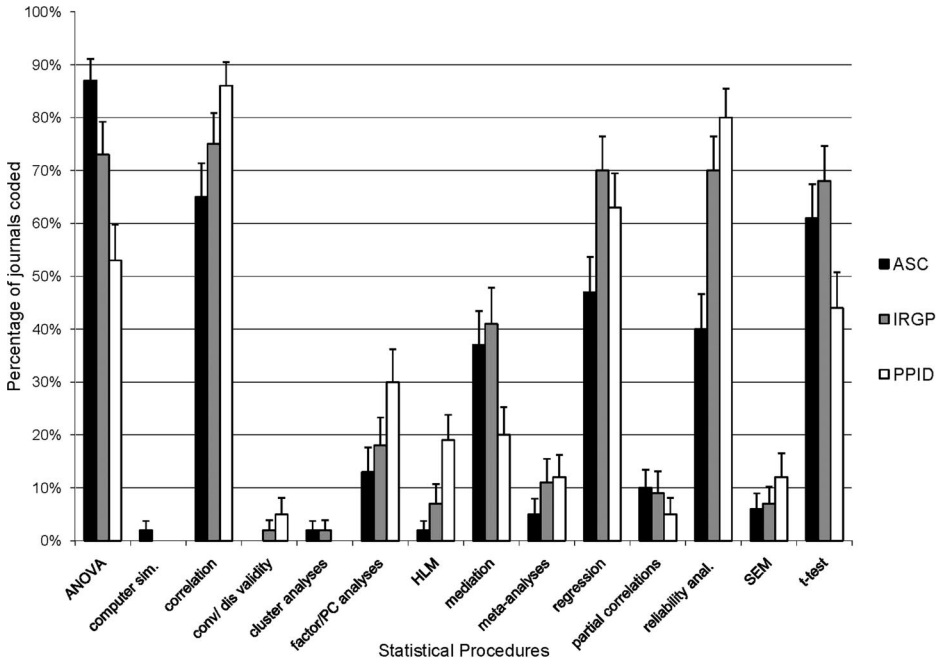

Figure 3. Statistical analyses used in articles in each section of the *Journal of Personality and Social Psychology*. $N = 177$ articles; 62 appeared in *Attitudes and Social Cognition* (*ASC*), 56 in *Interpersonal Relationships and Group Processes* (*IRGP*), and 59 in *Personality Processes and Individual Differences* (*PPID*). Error bars refer to standard errors of the mean. ANOVA = analysis of variance; sim. = simulation; conv/dis = convergent/discriminant; PC = principal components; HLM = hierarchical linear modeling; SEM = structural equation modeling.

In all cases except two, social and personality researchers differed significantly in all four methodological variables examined, with personality researchers more frequently using a correlational design and correlational statistics and social researchers more frequently using an experimental design and ANOVA (all $ps < .05$). The only exceptions were for attribution research, where the groups differed on both designs but not on the statistics variables, and for relationships, where the groups differed on both designs and in the use of ANOVA but were equally likely to use correlations. Overall, then, the major differences in methodological approach found between personality and social researchers held when comparing researchers who reported studying the same topics. This finding is consistent with the implication, based on the checklist data, that the two groups differ more in *how* than in *what* they study.

Philosophical and Theoretical Approaches

Some of the sharpest differences between personality and social researchers emerged in the context of their broad theoretical and philosophical approaches—though it is noteworthy that the items addressing these issues were developed specifically to distinguish between personality and social researchers, as well as between the experimental and correlational streams. Two of the strongest differences that emerged between the groups reflected orientations toward the longstanding person–situation debate, suggesting that this issue continues to play a role in determining whether an individual is a personality or social researcher. Specifically, personality researchers were more likely to characterize their overarching theoretical approach with the statement, "individuals' behaviors, thoughts, and feelings tend to be consistent across situations and over time," Ms = 5.09 vs. 3.48, $d = 1.15$, CLE = 79%, $t(136) = 6.74$, $p < .05$; whereas social researchers were more likely to characterize their theoretical approach with the statement, "situations drive most behaviors, thoughts, and feelings," Ms = 5.30 vs. 3.65, $d = 1.25$, CLE = 80%, $t(135) = 7.06$, $p < .05$. However, it is important to note that 5.1 and 5.3 are not at the highest end of the scale, and 3.5 and 3.6 are closer to the midpoint than the low end. Thus, given that these were some of the largest differences that emerged between the two groups, the most accurate characterization of these findings is that most researchers believe in the importance of both dispositional and situational influences on behavior, but there is a relative difference between the two groups. We also found a difference in the tendency to seek counterintuitive effects over commonsensical ones; 64% of social researchers reported seeking counterintuitive effects, whereas only 35% of personality researchers reported doing so ($p < .05$). This difference is not surprising, given a recent debate in *Brain and Behavioral Sciences* about the merits of counterintuitive findings, which largely featured personality and social researchers on opposite sides (see Krueger & Funder, 2004).

Stereotypes of Personality and Social Research

To examine agreement and accuracy in the stereotype ratings, we computed profile correlations across the 77 survey items, not including the checklist items assessing research topics. Respon-

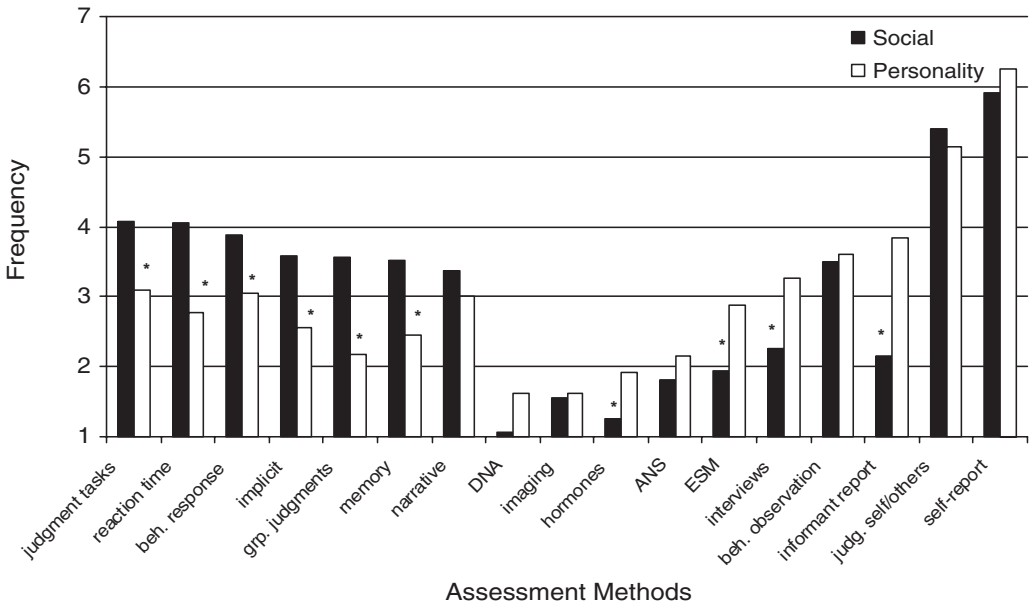

Figure 4. Assessment methods used by personality and social researchers. $N = 139$; Cohen's *d*s (and common language effect sizes) for significant effects were 0.62 (67%) for judgment tasks, 0.73 (70%) for reaction times, 0.52 (64%) for behavioral (beh.) response, 0.59 (66%) for implicit methods, 0.76 (70%) for group judgments, 0.71 (69%) for memory tests, 0.57 (66%) for hormones, 0.58 (66%) for experience sampling methods (ESM), 0.61 (67%) for structured interviews, and 1.04 (77%) for informant reports. ANS = autonomic nervous system arousal. $^{*}p < .05$.

dents showed a high level of agreement in their stereotypes of personality and social researchers; interrater alphas were .94 for the typical personality researcher and .92 for the typical social researcher. These alphas were similar for ingroup and outgroup ratings; the alpha for personality researchers rating the typical personality researcher (i.e., ingroup ratings) was .96 ($n = 18$) and rating the typical social researcher (outgroup ratings) was .92 ($n = 27$). The alpha for social researchers rating the typical personality researcher (outgroup ratings) was .93 ($n = 15$) and rating the typical social researcher (ingroup ratings) was .94 ($n = 20$). In addition, the two groups showed a high level of agreement with each other about the stereotypes of each group. Specifically, the ingroup and outgroup stereotypes of social researchers correlated .93 and the ingroup and outgroup stereotypes of personality researchers correlated .96 (note that these are correlations between mean item profiles, which were computed separately within the personality and social subgroups).

To assess stereotype accuracy, we correlated these ingroup and outgroup stereotypes with the actual profile of means for personality and social researchers (i.e., the means reported in Figures 1–2

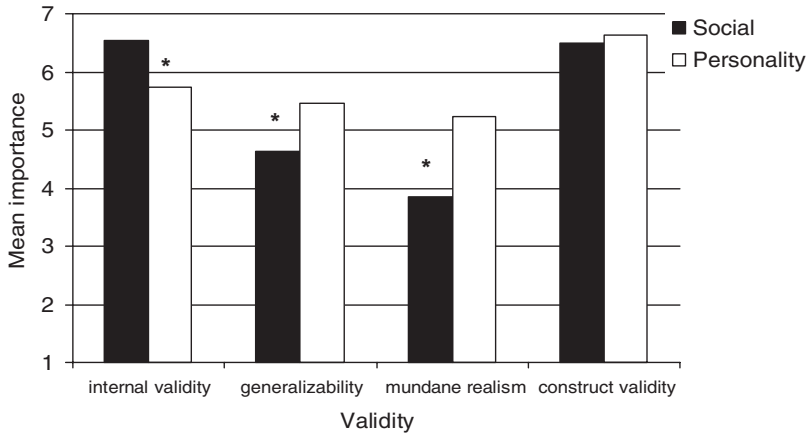

Figure 5. Forms of validity emphasized by personality and social psychologists. $N = 139$; Cohen's *d*s (and common language effect sizes) for significant effects were 0.67 (68%) for internal validity, 0.61 (67%) for generalizability, and 0.81 (72%) for mundane realism. $^{*}p < .05$.

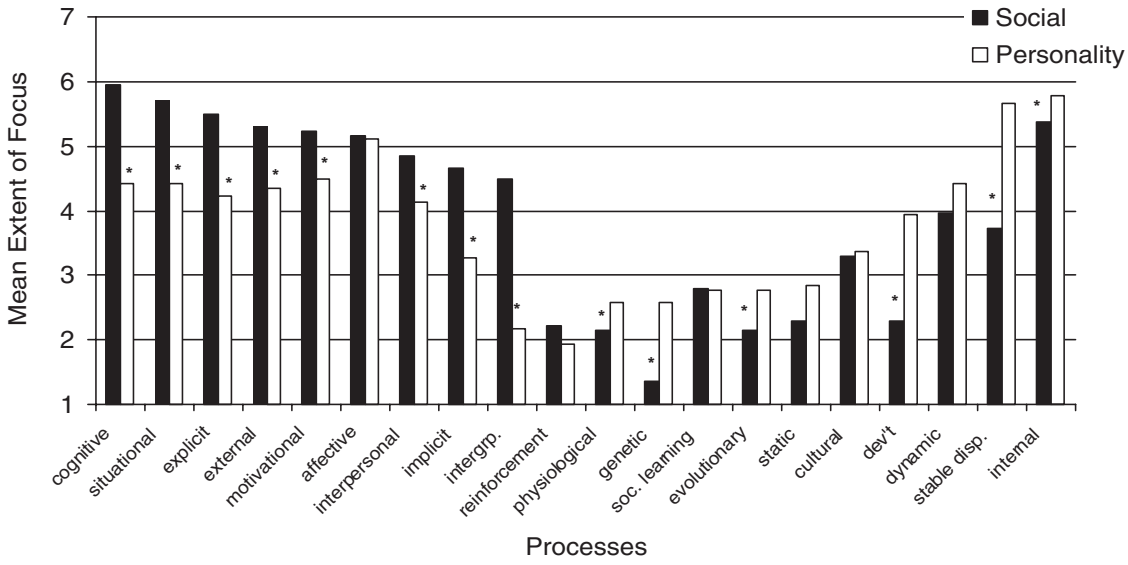

Figure 6. Causal processes that personality and social psychologists seek to understand. $N = 139$; Cohen's *d*s (and common language effect sizes) for significant effects were 1.08 (78%) for cognitive processes, 0.90 (74%) for situational factors, 0.76 (70%) for explicit processes, 0.64 (68%) for external processes, 0.43 (62%) for motivational processes, 0.42 (63%) for interpersonal processes, 0.74 (62%) for implicit processes, 1.30 (82%) for intergroup processes, 0.26 (57%) for physiological factors, 0.86 (73%) for genetic factors, 0.37 (60%) for evolutionary factors, 0.95 (75%) for developmental (dev't) processes, 1.27 (82%) for stable dispositional factors, and 0.35 (65%) for internal factors. soc. = social. $^{*}p < .05$.

and 4–6). As with the correlations demonstrating that the two groups hold similar stereotypes, these correlations were computed across items, not respondents. Thus, these correlations indicate the extent to which the mean stereotype ratings of each group correspond to mean self-ratings provided by group members. Both ingroup and outgroup accuracy were high. For the personality stereotype, the ingroup ratings correlated .90 with the actual profile of means for personality researchers, and the outgroup ratings (i.e., social researchers' ratings of the typical personality psychologist) correlated .89 with the actual profile of means for personality researchers. For the social stereotype, the ingroup ratings correlated .98 with the actual profile of means, and the outgroup ratings (i.e., personality researchers' ratings of the typical social psychologist) correlated .88 with the actual means. For comparison purposes (given the large magnitude of correlations of item profiles, relative to typical between-person correlations), we also computed correlations across items between the personality and social stereotypes. Despite some substantial differences between these stereotyped profiles, they should be positively correlated, because some methodologies are frequently used by both groups and others are rarely used by either. In fact, the personality and social stereotypes correlated .54 (social researchers' perceptions) and .31 (personality researchers' perceptions).

In addition to correlating the overall profiles of item means, we also examined stereotype accuracy separately for each individual research practice. Specifically, for each research practice, we examined whether differences between the stereotypes of the two groups converged with differences between the self-reports of the two groups (i.e., do the same items that show group differences in the stereotype ratings show group differences in the self-ratings?). These item-level analyses provide a more nuanced picture of which specific stereotypes are accurate and inaccurate. For each dimension, almost all of the differences that emerged in the self-reported survey results converged with stereotypes about the two groups; specifically, 60 of 62 total differences that emerged were accurately predicted. In addition, stereotypes converged with differences that emerged from the content-coding analyses: All of the differences found between the *PPID* and *ASC* sections of *JPSP* were consistent with the stereotypes, except for the difference in tests of mediation found between the two *JPSP* sections. Thus, it seems that social–personality researchers hold a highly accurate view of their field, and in particular of the distinctions and similarities between the subareas of personality and social psychology. It is noteworthy, however, that stereotyped differences tended to be somewhat larger (in most cases at least a standard deviation larger) than actual differences, both as self-reported in the survey and as found in our content coding of *JPSP* articles. That is, personality and social researchers tend to overemphasize the magnitude of the differences between the two groups, although they are accurate in their assessment of where these differences lie (Tracy, Robins, & Sherman, in press).

However, in a number of cases, respondents expected differences between personality and social researchers that did not emerge in the survey responses concerning actual research practices. Specifically, for research designs, respondents inaccurately expected that personality researchers would use more cross-cultural, cross-species, and psychobiographical designs, $t(66) = 3.84$, $t(65) = 3.24$, and $t(64) = 8.77$; *d*s = 0.54, 0.52, and 1.45, respectively; *p*s $< .05$; for statistics, that personality researchers would more frequently use time-series analyses and multidimen-

Table 3
Research Topics Studied by Personality and Social Researchers

Research topic	Personality researchers (n = 65)		Social researchers (n = 74)
Aggression	21%		29%
Attitudes	37%	<	64%
Attribution	29%		45%
Brain functioning	18%		14%
Clinical disorders	32%		19%
Creativity	14%		14%
Cultural psychology	37%		35%
Education/achievement	15%		15%
Emotion	66%		57%
Evolutionary psychology	18%		24%
Gender/sexuality	28%		30%
Health psychology	46%	>	24%
Implicit processes	40%		51%
Intelligence/cognitive ability	20%		11%
Intergroup processes	29%	<	53%
Interpersonal attraction	20%		27%
Judgment and decision making	22%	<	43%
Motivation	52%		57%
Nonverbal behavior	20%		23%
Personality development	45%	>	16%
Personality traits	66%	>	43%
Persuasion	8%	<	28%
Political psychology	15%		27%
Positive psychology	28%	>	12%
Relationships	31%		31%
Self-concept	43%		49%
Self-esteem	34%		36%
Self-regulation	54%		39%
Social cognition	43%	<	64%
Social development	18%		16%
Social influence	20%	<	49%
Social roles	25%	<	45%
Statistics/methodology	34%		23%
Stereotyping/prejudice	31%	<	57%
Stress/coping	35%	>	15%

Note. Significant differences between personality and social researchers are indicated with < or > signs. N = 139.

sional scaling, $t(63) = 2.23$ and $t(62) = 3.02$; ds = 0.33 and 0.49, respectively; ps < .05; for assessment methods, that personality researchers would more frequently use narrative/open-ended and self-report assessments, $t(64) = 5.19$ and $t(64) = 4.49$; ds = 0.72 and 0.76, respectively; ps < .05; for processes, that personality researchers would focus more on physiological and static processes, $t(65) = 4.14$ and $t(56) = 5.64$; ds = 0.65 and 1.10, respectively; ps < .05, whereas social researchers would focus more on social learning processes, $t(63) = 4.46$, $d = 0.72$, $p < .05$; and, for research topics, that personality researchers would be more likely to study clinical disorders, creativity, intelligence/cognitive processes, and statistics, ts(57) = 4.99, 5.90, 4.90, and 2.21; ds = 0.89, 1.11, 0.88, and 0.30, respectively; ps < .05, whereas social researchers would be more likely to study aggression, attribution, culture, gender/sex, implicit processes, interpersonal attraction, nonverbal behavior, and relationships, ts(57) = 2.36, 8.67, 2.88, 2.36, 4.35, 8.67, 4.16, and 6.92; ds = 0.42, 1.43, 0.46, 0.42, 0.70, 1.38, 0.66, and 1.22, respectively; ps < .05. The final inaccurate stereotype was about the importance of validity; respondents expected personality researchers to place greater importance on construct validity than did social researchers, $t(54) = 4.53$, $d = 0.94$, $p < .05$.

Searching for Cronbach's Two Streams in the Murky Waters of Social–Personality Psychology

We next examined whether the research designs, statistical analyses, and assessment methods associated with each of Cronbach's (1957) streams of research do in fact cluster together empirically and form two coherent factors. In other words, do researchers who use experimental designs also tend to conduct ANOVAs, use assessment methods such as reaction times and judgments tasks, and emphasize internal validity? Similarly, do researchers who use correlational designs (including longitudinal and cross-sectional designs) also tend to compute correlations, assess their variables of interest with structured interviews and informant reports, and value external validity? We also asked whether, to the extent that the two streams are distinct, they map onto the distinctions found between personality and social researchers.

To address these issues, we conducted a factor analysis (principal axis factoring) using varimax rotation on the 54 items related to research designs, statistics, assessment methods, and validity.[6] Although the ratio of respondents to variables is relatively small (159:54), the ratio of variables to expected factors is very high (e.g., 54:2, if we expect two factors), making an N of 159 adequate (Lee & Ashton, 2007; MacCallum, Widaman, Zhang, & Hong, 1999). In order to ensure as large an N as possible, we imputed missing data on the variables that went into the factor analysis using the multiple imputation procedure from the computer program NORM (Schafer, 1997).

On the basis of the two streams framework, we extracted two factors and examined the rotated solution to determine whether the pattern of factor loadings reflected our expectations about the methods associated with each of the streams. The first two factors accounted for 26% of the total variance. Although the two-factor solution leaves a considerable amount of variance unexplained, this level of variance accounted for is typical of factors based on single-item ratings, which generally have low reliability (and therefore relatively little reliable variance to explain), and for factor analyses conducted on a large number of items that are highly heterogeneous (e.g., items about statistics were analyzed with items about the importance of each type of validity). We replicated these analyses using direct oblimin rotation and found that the two factors were independent (r = .01). Thus, the results presented below are based on the varimax-rotated factors.

Table 4 shows the factor loadings from the rotated two-factor solution. The first factor seems to clearly represent the correlational stream. Most of the highest loading items are statistical procedures (e.g., "convergent/discriminant validity," "HLM," "partial correlation"), research designs (e.g., "correlational approach," "longitudinal study approach"), and assessment methods

[6] We included only those items that directly addressed methodology in these analyses (i.e., items assessed in Sections 1, 2, 3, and 7 of the survey). However, when we conducted a factor analysis on all 77 items that were included in the stereotype analyses, the resulting factor scores correlated .96 (Factor 1) and .89 (Factor 2) with the factors that emerged from the analyses presented in text.

Table 4
Two-Factor Varimax-Rotated Solution of Methodology Items

Item	Factor 1	Factor 2
Correlational designs	.63	
Longitudinal designs	.63	−.28
Hierarchical linear modeling	.63	
Convergent/discriminant validity	.62	
Informant reports	.59	
Growth-curve modeling	.58	
Item response theory	.58	
Structural equation modeling	.55	
Factor/principal components analyses	.54	
Molecular genetics/DNA testing	.54	
Twin/adoption designs	.53	
Cluster analyses	.52	
Partial/part correlations	.52	
Correlations	.49	
Discriminant function analyses	.47	
Structured interviews	.47	
Patient studies	.46	
Cross-sectional designs	.46	
External validity (generalizability)	.45	
Multiple regression	.42	
External validity (mundane realism)	.41	
Time-series analyses	.41	
Reliability analyses	.39	
Power analyses	.39	
Hormone assessment	.37	
Experience sampling method	.36	
Self-report assessment	.34	
Meta-analyses	.34	.28
Field study designs	.34	
Cross-cultural designs	.31	
Mathematical modeling	.30	
Quasi-experimental designs	.26	
Computer simulations	.26	
Reaction-time assessment		.77
Memory tests		.76
Implicit measures		.64
Experimental designs	−.57	.60
"Other" judgment tasks		.59
Analysis of variance	−.38	.54
Behavioral response measurement		.47
Internal validity		.43
t-tests		.41
Multidimensional scaling		.34
Tests of mediation/path analyses		.35
Judgments of groups		.34
fMRI		.28
ANS (autonomic arousal) response assessment	.25	.26

Note. $N = 155$. Factor loadings below .25 were suppressed.

(e.g., "informant report," "structured interviews") associated with the correlational stream. The second factor seems to clearly represent the experimental stream, with the highest loading items including assessment methods (e.g., "reaction-time measures," "memory tasks," "implicit measures"), research designs (e.g., "experimental"), and statistical procedures (e.g., "ANOVA"). Returning to our predictions in Table 1, 39 out of 42 items (93%) had higher loadings on the predicted factor, assuming the two-factor solution represents Cronbach's (1957) two streams. There were no age, gender, or nationality (United States vs. non-United States) differences in either of the factors.

We also examined the rotated three- and four-factor solutions, to determine whether the two-factor solution was the best conceptual fit for the data. In the three-factor solution, the first factor seemed to be a pure "methodological sophistication" factor, with the highest loading items including item response theory (IRT) analyses, mathematical modeling, molecular genetics, growth-curve modeling, and computer simulations. This factor seemed to cut across Cronbach's (1957) streams. The second factor, however, clearly represented the correlational stream, with the highest loading items including factor analyses, reliability analyses, self-report scales, and the correlational approach. Conversely, the third factor clearly represented the experimental stream, with the highest loading items including reaction-time measures, the experimental approach, and use of ANOVA. In the four-factor solution, the first two factors represented the correlational and experimental streams, respectively (the highest loading items on Factor 1 included factor analysis, the correlational approach, and multiple regression; and on Factor 2, reaction-time measures, the experimental approach, and ANOVA). The third factor seemed to represent developmental and neurobiological research, with the highest loading items including growth-curve modeling, measures of autonomic nervous system arousal and hormones, and longitudinal designs. Finally, the fourth factor included a mixture of sophisticated methodologies, such as mathematical modeling, computer simulations, and IRT analyses.

Returning to the two-factor solution, we next sought to determine the extent to which the two factors mapped onto the split between personality and social research, so we saved the factor scores and correlated them with the personality and social research topics variables. The Correlational factor was strongly positively correlated with personality research identity and strongly negatively correlated with social research identity; for the Experimental factor, this pattern reversed (see Table 5). Analyses of group differences provided convergent support; personality researchers scored higher than social researchers on the first (Correlational) factor, Ms = .62 vs. –.53, $t(137) = 8.66$, $d = 1.47$, $p < .05$, whereas social researchers scored higher than personality researchers on the second (Experimental) factor, Ms = .33 vs. –.44, $t(137) = 5.21$, $d = 0.88$, $p < .05$. To the extent that the two-factor solution represents the structure of social–personality research, then, the split between the two streams seems to fairly accurately characterize the distinction between personality and social researchers. Furthermore, the fact that the factors are independent (based on the oblique factor rotation) demonstrates that the two streams are independent, suggesting that researchers may be high or low on both, or either. If researchers tended to do either correlational or experimental stream research, we would have found a single bipolar factor with correlational stream methods marking one pole and experimental stream methods marking the other. Instead, when we extracted a single factor, the highest loadings again fit with the correlational stream, but only a few loadings were negative (e.g., ANOVA, reaction-time measures), and all negative loadings were weak in magnitude.

We further explored the meaning of the two factors by correlating them with respondents' ratings of the processes they view as underlying their effects. These correlations, presented in Table 5, largely converge with the correlations found between the process items and the tendency toward studying personality versus social research topics (also shown in Table 5). That is, psychologists whose research fits within the correlational stream (Factor 1) tend to view their effects as caused by

Table 5
Correlations of Factor Scores With Personality and Social Research Topics and Causal Processes Thought to Underlie Effects

Topic/process	Factor 1: Correlational stream	Factor 2: Experimental stream
Social research topics	−.56*	.36*
Personality research topics	.58*	−.29*
Affective processes	.13	.20*
Cognitive processes	−.24*	.62*
Cultural factors	.24*	.20*
Developmental processes	.51*	−.19*
Dynamic processes	.21*	.26*
Evolutionary factors	.31*	.03
Explicit/conscious processes	−.14	.49*
Factors external to the person	−.09	.39*
Factors within the person	.32*	.09
Genetic factors	.65*	−.08
Implicit/unconscious processes	−.24*	.61*
Intergroup processes	−.24*	.40*
Interpersonal processes	−.05	.19*
Motivational processes	−.15	.46*
Physiological processes	.25*	.27*
Reinforcement processes	.06	.29*
Situational/contextual factors	−.26*	.45*
Social learning processes	.13	.18*
Stable dispositions	.56*	−.19*
Static processes	.38*	.23*

Note. $N = 155$.
* $p < .05$.

developmental, evolutionary, internal, genetic, and stable dispositional processes—and not by cognitive, implicit, intergroup, or situational factors. In contrast, psychologists whose research fits within the experimental stream (Factor 2) tend to view their effects as caused by cognitive, explicit, external, implicit, intergroup, interpersonal, motivational, reinforcement, situational, and social learning processes—and not by developmental or stable dispositional processes. Interestingly, both factors were positively related to an emphasis on cultural, dynamic, physiological, and static processes—indicating that these processes cut across the two streams.

Overall then, the two factors had divergent correlates with the processes assumed to underlie psychological effects, which fits with the need for researchers to tailor their methods toward uncovering the processes that they hope to find. For example, individuals who seek to understand developmental processes would likely score high on the Correlational factor because high-loading items include the use of longitudinal designs and growth-curve analyses—methods ideally suited for understanding developmental processes (given that age cannot be experimentally manipulated). Similarly, it is not surprising that researchers who study cognitive processes would score high on the Experimental factor, where high-loading items include reaction-time assessment and memory tests. It is possible, in fact, that the two areas' emphases on divergent processes is responsible for many of the differences found in methodologies, in which case the core distinction between personality and social researchers may be the historical distinction between a focus on stable dispositional factors versus malleable situations (and, perhaps more importantly, the mental processes through which situations exert their influence on individuals). However, it is also likely that researchers within each area learn the "tools of the trade" (e.g., correlations vs. experiments) and begin their programs of research by applying these tools irrespective of their particular programs of study.

Hybrids

We next examined whether any social–personality researchers might best be considered "hybrids." We classified respondents as hybrids if they rated themselves as a 4 (the midpoint of the scale) or higher on both the personality and social research topics questions; these individuals identified themselves as working in both areas at least "sometimes." Forty-four percent of respondents ($n = 68$) met this criterion. Of note, when we used more stringent cutoffs, 23% rated themselves as 5 or higher on both scales, 13% as 6 or higher on both scales, and 6% as 7 (the highest possible rating) on both scales. It is also noteworthy that only 5% of respondents reported "always" (i.e., a rating of 7) studying topics relating to personality psychology and "never" (i.e., a rating of 1) studying topics related to social psychology; and only 4% of respondents reported the reverse pattern—"always" studying social topics and "never" studying personality. Thus, the large majority of researchers in the area (91%) view themselves as studying topics, at least occasionally, that fall within both areas.

We compared individuals classified as hybrids (based on their ratings of 4 or above on both scales) with (a) primarily social researchers (i.e., individuals who rated themselves as a 4 or higher on the social research topics scale and below a 4 on the personality research topics scale, $n = 57$) and (b) primarily personality researchers (i.e., individuals who rated themselves as a 4 or higher on the personality scale and below a 4 on the social scale, $n = 27$). Hybrid researchers scored higher on the first factor (the Correlational factor) than did social researchers, $t(95) = 4.12$, $d = 0.84$, $p < .05$, and lower than personality researchers, $t(74) = 2.85$, $d = 0.72$, $p < .05$. Hybrid researchers also scored higher on the second factor (the Experimental factor) than did personality researchers, $t(74) = 3.75$, $d = 0.92$, $p < .05$, and marginally lower than social researchers, $t(95) = 1.73$, $d = 0.31$, $p < .10$.

Thus, as might be expected, individuals who view themselves as frequently studying topics relevant to both personality and social psychology (i.e., hybrids) tended to fall in between individuals who view themselves as studying primarily personality or social topics on both methodological factors—suggesting that, for the hybrids, the two streams have largely merged. In fact, factor scores on the Correlational and Experimental factors did not differ for these individuals, $t(67) = 0.89$, *ns*, indicating that hybrids (comprising almost half of our sample) use the methods of both streams equally frequently.

Discussion

This study examined the practice of psychological science among personality and social researchers, with the goal of determining the degree to which (a) these two subareas use different sets of approaches, methods, and statistical procedures, study distinct research topics and processes, and hold divergent overar-

ching aims and theoretical perspectives; (b) these differences conform to stereotypes about the two subgroups; and (c) these differences map onto Cronbach's (1957) two streams of research. Findings indicate that personality and social researchers differ on most of the research practices examined, and, although these differences tend to be moderate to large in magnitude, they are, for the most part, relative rather than absolute. Furthermore, both groups study similar research topics, suggesting that the key differences lie in how research is conducted, not in what is researched. This finding supports the claim that personality and social psychology are best thought of as two subareas of the same field, whose researchers study similar phenomena but use somewhat different methodological tools to do so, rather than as two separate areas of psychology whose researchers seek to understand distinct sets of phenomena.

We also found that personality and social researchers hold highly accurate stereotypes of the research practices of each subgroup, regardless of whether they were asked to report on their ingroup or outgroup. In addition, factor analyses of the survey data demonstrated that the structure of social–personality research practices can be characterized as having two factors, which correspond to Cronbach's (1957) "two disciplines," and which show systematic differences between personality and social researchers. Finally, we found that almost half of the respondents in our sample could be classified as hybrids—researchers who conduct studies related to both personality and social psychology, merging the methods associated with each of Cronbach's streams.[7]

The Case for Two Streams

The present findings support the existence of two streams of research within social–personality psychology. The distinction between personality and social research maps quite closely onto the distinction that Cronbach (1957) made between the two streams, and this holds for almost all elements of the research process. This finding emerged from our survey of leading personality and social researchers and converged with the results of a content analysis of statistical procedures used in the personality- versus social-oriented sections of *JPSP*. Importantly, concerns about the potential selectivity of the survey sample are at least partially addressed by the converging findings from the content analyses, which do not rely on the willingness of researchers to participate in the study or accurately report their research practices. Furthermore, factor analyses confirmed that two distinct, independent dimensions underlie social–personality research; the two-factor solution corresponds closely to Cronbach's conceptualization of the two streams.

Our findings also suggest that social–personality researchers are well aware of the existence of the two streams; they know themselves and their field quite well. One important question for future research is whether this knowledge extends to the rest of the field. It makes sense that the individuals who edit the top journals in each subarea can accurately report on the research practices of individuals within those disciplines, but it remains unclear whether most social–personality researchers share this expertise.

Our findings also reveal a tremendous amount of overlap between personality and social researchers, despite the clear distinction that emerged between the two groups. Many research practices are used by both personality and social researchers, and, for the most part, personality and social psychologists study the same topics, but they do so in different ways. This finding has an important implication. If personality and social researchers are interested in understanding the same phenomena, yet use distinct approaches, designs, methods, and statistical procedures to do so, both groups may benefit from greater adoption of an integrationist, or symbiotic, approach (Swann & Seyle, 2005). At the same time, the current division of labor may be an effective way for the field as a whole to benefit from both research approaches—assuming individuals in each subgroup pay attention to the research published in journals and journal sections associated with the other subgroup. However, one question that our data cannot address is the extent to which personality and social researchers equally value the research methods and approaches used by the other subarea and the extent to which they keep abreast of new findings, methodological innovations, and other major advances from "across the aisle." We also cannot know, from these data, whether researchers consider one stream to be intrinsically superior to the other, but we suspect that each subarea places a higher premium on the core methods and designs associated with its own stream than the other.

To take a prominent example of the divergence between the two subareas, both personality and social researchers study aggression, but they do so in different ways. Social psychologists tend to emphasize the importance of situations in producing aggressive behavior and have demonstrated, for example, that the presence of aggression-related objects in the environment (e.g., Berkowitz & LePage, 1967), exposure to violent media (e.g., Anderson & Dill, 2000), and rejection episodes (e.g., Twenge, Baumeister, Tice, & Stucke, 2001) increase aggressive behavior. In contrast, personality researchers have documented stable individual differences in aggressive tendencies and have shown that these tendencies are highly heritable and consistent over long periods of time (e.g., Lahey, Moffitt, & Caspi, 2003). They have argued that even in bad situations, not everyone behaves badly, and we can predict which individuals are most likely to commit criminal acts on the basis of previous antisocial behavior, their genetic similarity to other aggressive individuals (e.g., twin siblings), and from scores on relatively stable traits such as authoritarianism, negative emotionality, impulsivity, (low) intelligence, and (low) self-esteem (Altemeyer, 1996; Caspi et al., 1994; Donnellan, Trzesniewski, Robins, Moffitt, & Caspi, 2005; Miller & Lynam, 2001). Of course, both situations and individual differences are likely to influence behaviors, and it is noteworthy that the basic effects in personality psychology (i.e., correlations of individual differences) are independent of the basic effects in social psychology (i.e., differences between conditions/situations), such that large main effects of situations do not imply an absence of stable individual differences, and vice versa (Funder, 2006).

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[7] This high proportion of hybrids is particularly noteworthy given that our recruitment methods may have led to an underestimation of the actual proportion of hybrid researchers in the field. Hybrids may be less likely to serve on the editorial boards of highly area-specific journals such as *JP*, *JESP*, *JPSP: ASC*, *JPSP: PPID*, *EJSP*, and *EJP*—as most of our participants did. Hybrids may be less welcomed onto these editorial boards or into editorship positions at these journals at least in part because their allegiance to either particular area is not certain; that is, a hybrid researcher may be considered too social-oriented for a personality journal or too personality-oriented for a social journal.

In addition to these additive effects, we also know from decades of research on aggression, as well as other topics in psychology, that persons and situations interact in important and consequential ways (Endler & Magnusson, 1976). Thus, the most fruitful approach may be to simultaneously study both dispositions and situations, examining their independent and interactive effects using a wide range of research designs (experimental, quasi-experimental, longitudinal, etc.). As Cronbach (1957) argued, "correlational psychology studies only variance among organisms; experimental psychology studies only variance among treatments. A united discipline will study both of these, but it will also be concerned with the otherwise neglected interactions between organismic and treatment variables" (p. 681). Our findings suggest that this combined approach is, in fact, precisely the one that many individuals in the field take.

In fact, modern researchers have in many ways lived up to Cronbach's (1957) hopes for an integrated field. Many researchers have adopted a symbiotic perspective, including individual difference and experimental variables in their studies, and seeking interactions between these variables. Many of the hybrid researchers in our sample represent this trend, but as Swann and Seyle (2005) noted, a larger number of researchers (who may nonetheless identify more with the personality or social subarea) have also done precisely this, integrating correlational and experimental approaches in their research, using assessment methods and statistics from both streams, and producing bodies of work that have greatly added to the field's knowledge. Examples of the integrationist approach pervade the field, but we will name just a few prominent exemplars: In Carver and Scheier's (1998) research on self-focused attention, these researchers both manipulated self-focused attention and measured dispositional self-consciousness; in Higgins's (1987) model of actual, ought, and ideal selves, he outlined a causal process that could be manipulated and laid the groundwork for measuring individual differences in self-views; and in Dweck's (1999) model of implicit self-theories, she proposed scales for assessing self-theories as stable individual differences but also directly influenced and manipulated them through interventions. Mischel and Shoda (2008) provide a good example of researchers who explicitly advocate examining person–situation interactions, assessed as "if–then" situation–personality relations. The lines of research that have resulted from each of these initial programs are impressive, and each has shaped the field in important ways.[8] Many more examples exist, and the fact that researchers can fruitfully merge the two streams demonstrates their compatibility as research endeavors.

What Have We Learned About Social–Personality Research?

Both the survey responses and the stereotype ratings show that social psychological research appears to fit quite well within the experimental stream and that personality research fits well within the correlational stream. Other than this general distinction, the present findings revealed a few noteworthy trends in the research activities of the two groups. First, an examination of research designs reveals that cross-species comparisons and psychobiographies are the least frequently used approaches across social–personality research. In the former case, the low frequency may reflect the fact that researchers who study animal personality and social behavior typically identify themselves as comparative psychologists, primatologists, and animal behaviorists, and thus are not well represented in our sample (Weinstein, Capitanio, & Gosling, 2008). The low frequency of psychobiographies, in contrast, may reflect a more general trend in the field away from person-centered approaches (Elms, 2007).

Second, our survey revealed that personality researchers use a greater range of sophisticated statistical procedures than do social researchers, including IRT, time-series analyses, growth-curve modeling, and SEM. These differences may partly reflect our choice of which items to include in the survey but are more likely due to broader differences in methodology between the two groups. Experimental results are easily analyzed with ANOVA, whereas correlational studies produce data that are more amenable to (and often require) a wider range of statistical procedures.

Third, the finding that social researchers place greater emphasis on implicit or unconscious processes than do personality researchers suggests that the study of the unconscious has moved away from its psychodynamic roots (Kihlstrom, 1994). Traditionally, the unconscious was considered the domain of psychoanalytic-oriented researchers (e.g., Freudians), who typically had stronger ties to personality than to social research (Westen, Gabbard, & Ortigo, 2008). Now, however, it seems that the study of the unconscious has shifted and is no longer aligned primarily with psychodynamic studies of defensive processes but rather has been recognized as an essential component of many basic (and healthy) social–cognitive processes (Bargh & Chartrand, 1999).

Fourth, the distinction that emerged between the two groups in their tendency to seek counterintuitive versus commonsensical effects may reflect their differing emphases on describing a phenomenon versus seeking to understand the way it works. For example, in the self-judgment literature—an area of research populated by both personality and social psychologists—personality researchers typically seek to show that self-reports are relatively accurate, converge with reports made by others, and predict important outcomes, whereas social researchers tend to document errors and biases in self-judgments that provide insights into the ways in which the self-evaluative system functions (Dunning, 2005; Funder, 1987). Thus, social psychologists seek counterintuitive effects because they believe that these effects reveal something about the workings of the system, whereas personality psychologists seek commonsensical effects because these effects describe more general patterns of behavior (Darley & Todorov, 2004; Epley, van Boven, & Caruso, 2004; Krueger & Funder, 2004).

Fifth, it is noteworthy that, despite widespread discussion about the rise of neuroscience and other biologically oriented approaches to social–personality psychology, the use of such methods (including DNA, fMRI/event-related potential, hormone levels, and measures of autonomic arousal) remains infrequent among both per-

[8] It is noteworthy, in this context, that Charles Carver, the current editor of *JPSP: PPID*, won the 2007 Donald T. Campbell Award for Distinguished Contributions in Social Psychology—clearly suggesting that his work is viewed as bridging the personality–social divide. Similarly, Walter Mischel received the Distinguished Scientist Award from the Society of Experimental Social Psychology and the Jack Block Award for Distinguished Contributions to Personality Research.

sonality and social researchers—though slightly more frequent among personality than social. In general, this pattern may reflect a trend in the field as a whole; research on citation rates and dissertation topics suggests that neuroscientific psychology is becoming more predominant than in the past but has not yet begun to approach the levels of prominence seen by other major theoretical approaches, such as the cognitive perspective (Tracy, Robins, & Gosling, 2003).

Finally, the results of the present research indicate that, despite the clear distinctions between personality and social researchers, both groups conduct research within the same overarching model or paradigm. Although most researchers subscribe more fully to one stream or the other, the majority of researchers make use of designs, methods, and statistics from both streams and (for the most part) appear to view both as valid ways of conducting research. The two streams thus might best be viewed as two perspectives, or general approaches, that shape an individual's research but do not constrain it in the same way that, for example, the "standard model" does for physicists, or evolutionary theory does for biologists. Our expectation is that similar findings would emerge from parallel studies on other areas of psychology (e.g., clinical, cognitive, developmental), suggesting that psychological science as whole may be considered a unified discipline, but one that encompasses two broad, largely complementary, approaches.

Given this finding, we offer several recommendations for how the field of social–personality psychology might become more methodologically integrative, leading, we believe, to improvements in the quality of research conducted within both areas. First, it is our hope that simply being made aware of the differences between the two areas will help inform researchers of alternative ways of approaching their research questions. It is typical for researchers studying a given phenomenon to look outside their own field to other areas of psychology for new ways of studying a given construct; for example, attitude researchers look to cognitive psychology, emotion researchers to neuroscience, and trait researchers to developmental psychology. The present findings suggest that researchers might just as fruitfully look within social–personality psychology, but outside their own subarea, for new methods and approaches. The best answers to the social researcher's question about how to measure self-enhancement, or to the personality researcher's question about how to capture narcissistic behavior, may be found within the pages of *JPSP*—simply not in the particular section these researchers typically turn to.

This leads to a second recommendation, which is that social and personality researchers more actively keep abreast of new theory and findings from the other area. This recommendation highlights the importance of societies such as the Society for Personality and Social Psychology and its associated journals and annual conference, which explicitly ensure coverage of both areas. Furthermore, given that most researchers tend to become well-versed in the research conducted by their local colleagues (which they learn about regularly through area colloquia and shared students), our findings point to the value of joint social–personality programs. Even departments that do not have joint areas can, however, make efforts toward greater integration, through joint (cross-area) colloquia, or single-area colloquia that feature speakers from the complementary area.

We also recommend that researchers seek out collaborators from across the divide. If every researcher strove to collaborate on at least one project in their area of expertise with a researcher studying that same topic from the other Cronbachian stream, it is highly likely that novel findings would emerge, and both researchers would leave the collaboration (or continue it) with new ideas and insights. In fact, such collaborations would be a fruitful way for researchers to conduct studies that directly incorporate both streams, by examining Person $\times$ Situation interactions. As Reis (2008) recently noted, this type of research would be facilitated by the development of a systematic and consensual way of conceptualizing and classifying situations, which might parallel the Big Five taxonomy in personality research.

Our fourth recommendation is that, regardless of the importance individuals place on integrating social and personality research practices within their own studies, social–personality faculty should focus on educating and socializing their graduate students in the norms of both subareas. Students should be taught the basic practices of both streams (e.g., graduate courses in statistics should emphasize that ANOVA is a special case of multiple regression) and, more importantly, the complementary value of research practices in both streams (e.g., that studies with high internal validity should be supplemented by studies with high external validity and vice versa). In addition to mentorship, this can be done through coursework featuring journal articles and classic chapters from both streams, as well as articles that adopt an interactionist approach. This also points to a need for broader textbooks, handbooks, and courses, at both the undergraduate and graduate level. Within departments, personality and social faculty may wish to work together to establish guidelines for integrative social–personality courses, rather than teaching only separate graduate seminars on "Social Psychology" and "Personality Psychology." Certainly each course will reflect the idiosyncratic interests and expertise of each instructor, but there are also some methods, research approaches, and statistics that all social–personality students should be familiarized with; the present findings may be of use in determining these areas of common ground.[9]

As a final recommendation, we suggest that journal editors and reviewers make conscious efforts to bear in mind the potential benefits of an integrative approach. In this way, authors could be reminded of complementary ways to think about or address their research questions. Editors and reviewers could even, at times, adopt the perspective of a "watchdog" from the other stream—reminding authors of entrenched problems that individuals working largely within their own subarea may tend to forget (e.g., the overreliance on self-report methods in personality research and the artificiality of some experimental procedures in social research). Although it would be impractical to have an actual "watchdog" editor from the opposite stream review all papers submitted to cross-area journals, our hope is that the present findings can nonetheless be of use to editors who choose to occasionally fill this role, and who will shape the future of our field. At the very least, knowledge and understanding of current and past research practices is a necessary prerequisite for future research progress. As the

[9] We thank Brent Roberts, Phil Shaver, and Bill Swann for their helpful suggestions in developing these recommendations.

cliché goes, "You can't know where you are going until you know where you have been."

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