Graduate Student Journal of Psychology
2022, Vol. 19

Evaluating the Sampling Precision of Social Identity Related Published Research

Cobe Wilson, David Trafimow, and Tony Wang,
New Mexico State University
Cong Wang,
University of Nebraska Omaha

Social identity theory states that a person's sense of who they are is based largely on their group membership(s). We categorize ourselves, identify with groups, and compare our groups with others, in the hopes that our self-esteem is maintained or boosted from this comparison. A prerequisite of scientific research, even regarding social identity, is that researchers need to be confident that the empirical facts really are factual; that is, that the sample statistics reported accurately estimate corresponding population parameters; this is known as sampling precision, or how precisely our sample corresponds to our population. By employing the recently invented a priori procedure, the present research assesses the sampling precision with which published experimental and correlational social identity research statistics, across three time periods, estimate corresponding population parameters. We hypothesized 1: The precision of research in the social identity area should be hopefully below the 0.10 level or at least the 0.20 level for true experimental designs and 2: Precision in the social identity area should be improving, with recent social identity research enjoying a precision advantage over less recent social identity research. A sample of 75 academic papers, across 46 different journals was collected for analysis. For experimental studies, the mean precision level was 0.51 and the median precision level was 0.50 (n = 39). For correlational studies, the mean precision level was 0.24 and the median precision level was 0.20 (n = 55). The main findings are pessimistic, but with the glimmer of light that precision is improving.
Keywords: precision, confidence, social identity theory, a priori procedure, estimation

The overarching idea of social identity theory is that the individual and the group are intertwined. People are born into social societies, they develop ties to social groups, they classify themselves as members of those social groups, and the unique combinations of those social classifications create unique individuals. According to Stets and Burke (2000), identity is reflexive in that it makes itself an object which can be categorized, classified, and named in relation to other social classifications.

Social identity is a person's knowledge that they belong to a social group or category (Hogg & Abrams, 1988). A social group consists of individuals who hold a set of common social identifications. These groups are further categorized as the ingroup, which consists of individuals who are like the self, and the outgroup, which consists of individuals who are unlike the self. This process of accentuating the similarities with the ingroup and differences with the outgroup leads to a second process called social comparison. The process of identifying and categorizing yourself is known as self-categorization. Social identity researchers commonly assume that by classifying social identities through self-categorization (and by extension accentuating similarities with the ingroup, etc.), individuals will enhance their own positive self-esteem by promoting the ingroup and denigrating the outgroup.

No matter what the theoretical criticisms of social identity happen to be, the theoretical basis of identity and social identity research is not the current question. Trafimow and Myüz (2019) demonstrated imprecision with respect to five areas of psychology (social, developmental, clinical, cognitive, and neuro) and Trafimow, Hyman, and Kostyk (2020) demonstrated imprecision with respect to marketing research specifically. Our goal now is to expand that line of inquiry and address a potential criticism that, to our knowledge, has not been made. Specifically, our goal is to address the issue of the sampling precision of social identity research. Sampling precision is a measure of how close a sample's descriptive statistics are to the corresponding population parameters. Usually, and in the present case, this is measured as a fraction of a standard deviation. If the sampling precision of that research is impressive, it would imply that, whatever the other deficiencies of social identity research, at least there would be good reason to trust that the sample statistics are a good estimate of the corresponding population parameters. In contrast, if the sampling precision of social identity research is poor, it would imply that the sample statistics are not good estimates of the corresponding population parameters. A further implication would be that the findings cannot be trusted, which would be a preliminary problem that future re-

search would have to solve before addressing the more conceptual issues identified in the foregoing paragraph.

To summarize the present thinking, we believe that getting the empirical facts straight is vital both for theorizing and for evaluating theories. If a theory is unable to explain human behavior reliably and validly, then it is not a strong psychological theory. By ensuring that sample statistics are good estimators of population parameters, the reliability and validity of theoretical conclusions related to social identity theory can inspire greater confidence. Further, the generalization of these theories would also be improved. Thus, for the purpose of this article, the actual content of social identity theory is unimportant. What is most important, is the sampling practices of that research. To examine this issue, we use the a priori procedure.

The A Priori Procedure

The a priori procedure (APP) assumes the cruciality of obtaining sample statistics that are good estimators of corresponding population parameters (Trafimow et al., 2020). Lest the reader doubts this, imagine a fanciful scenario where Laplace's omniscient demon appears and informs us that there is no relationship between sample statistics and corresponding population parameters. In that case, no empirical reports would be trusted, nor would sample statistics be taken to provide good tests of hypotheses. Of course, there is no demon, but considering the fanciful scenario renders salient the importance of estimation.

Given that estimation is crucial, there are two related questions. First, there is the precision question: How close do we desire that sample statistics be to their corresponding population parameters? Second, there is the confidence question: What probability do we insist on of being that close? The basic idea of the APP is that the researcher makes specifications for precision and confidence, and then an APP equation provides the necessary sample size to meet the specifications. If the researcher collects the necessary sample size, or a larger one, then the researcher can be assured of meeting the specifications (Trafimow et al., 2020).

Consider an example. Suppose that a researcher intends to collect a single sample and is interested in finding out the sample size needed to be 95% confident of obtaining a sample mean within one-tenth of a standard deviation of the population mean. Using an equation by Trafimow (2017; 2019), $n = \left(\frac{z_{(1-c)/2}}{f}\right)^2$ where n is the sample size, f is the desired precision, and $z_{(1-c)/2}$ is the z-score that corresponds to the desired degree of confidence. Instantiating values into the equation indicates the following: $n=(1.96/0.1)^2 =384.16\approx385$. Thus, the researcher would have to collect 385 participants to meet specifications. Insisting on 385 participants may seem extreme compared to the much smaller sample sizes in most research, however, this provides a much greater level of precision than in typical psychology or marketing research (Trafimow & Myüz, 2019; Trafimow, Hyman, & Kostyk, 2020). If the researcher is willing to settle for less precision, such as precision at the 0.3 or 0.4 level typical in much social psychology research, the necessary sample size would drop dramatically. This precision can be treated much like confidence level, where we want to shoot for a 95% confidence level but may have to settle for 90%, for precision we can shoot for .1 but may have to settle for .3 or.4, depending on the circumstances of the research.

Although the APP was designed to be used pre-data, it can be used post-data too, which is a necessary condition for the present work. Remaining with the foregoing example, suppose the researcher wanted to collect 385 participants but only succeeded in obtaining 100 of them. Using 95% confidence as a conventional value, what is the precision entailed by 100 participants? To answer, the foregoing equation can be algebraically manipulated to yield f as opposed to

$$n: f = \frac{z_{(1-c)/2}}{\sqrt{n}} = \frac{1.96}{\sqrt{100}} = 0.196.$$

Thus, if the sample size is 100, rather than 385, the actual precision would be 0.196 rather than the desired value of 0.10 (Trafimow et al., 2018).

Researchers are usually interested in more complex cases such as differences between groups, correlation coefficients or functions of them (e.g., regression weights), and so on (Trafimow, 2019). In more complex cases, the mathematics can become extremely complex; but it is not necessary to address that complexity here because Hui et al. (2020) published links to programs for rendering the computations and these are free and user-friendly. However, those interested in the mathematics can consult Trafimow and MacDonald (2017) for multiple groups, Trafimow, Wang, and Wang (2020) for differences in means for independent samples or dependent samples, and Wang et al. (2021) for correlation coefficients.

To place into perspective the importance of preci-

sion values, we turn to Trafimow et al (2018). Within scientific inquiry, replication is a vital tool for the validity and reliability of a theory. If the results based on a theory cannot be replicated, then that theory lacks sufficient support. In a single-sample study, if we desire a precision value of .1, and we only have a sample size of 10, then the probability of replicating would only be .06! However, with 111 participants, that probability becomes .5, and so on as the sample size increases. The bottom line, then, is that the APP can be used, in a post-data fashion, to determine the sampling precision of varied published social identity research, where the sample sizes are reported. And this in turn can be used to draw conclusions about the possible replicability, validity, etc. of that published research.

One question that often comes up is why sampling precision matters at all? If we have a good effect size, then what is the point of the APP? Well, think about effect size. If we are looking for a specific experimental effect, and our effect size is large enough, no matter how small a sample we have, we will be able to see the effect. However, does that mean that the whole population of the world will also undergo that same effect? Realistically not. That is, no matter what the obtained effect size for our sample, we have no idea if that effect size is close to the population effect size unless there has been some sort of APP calculation. Therefore, there is no way to know how well the obtained effect supports or disconfirms the hypothesis or theory from which the hypothesis was derived. This is the strength of the APP and sampling precision. Sampling precision values, and the APP, can be used to provide increased confidence in our sample statistics, and thus increased confidence that the effect we are seeing is representative of the overall population, not just that the effect is present in our sample. Overall, the APP sampling precision values can be viewed as a closeness statistic similar to confidence levels in that the more stringent criteria we use, the more confident we can be in our inferences and conclusions.

In this study, we tested competing hypotheses from optimistic versus pessimistic viewpoints. From an optimistic viewpoint, the expectations would be as follows.

H1: The precision of research in the social identity area should be hopefully below the 0.10 level or at least the 0.20 level for true experimental designs (Trafimow, 2018).

H2: Precision in the social identity area should be improving, with recent social identity research enjoying a precision advantage over less recent social identity research.

Of course, from a pessimistic perspective, the foregoing hypotheses should not be supported. If the precision of social identity research is worse than 0.30 (that is larger), that would support pessimism (Trafimow, 2018). Further, it would be undesirable to find that precision is not improving, as an increase in precision is related to an increase in replicability and stronger generalization of theory, and as research methods have supposedly improved as time passes, we should hope to see an improvement in sampling precision as well. Finally, because the APP has never been used systematically to analyze correlational research, the relevant correlational analyses to be presented can be considered exploratory as a first step towards a more integral use of the APP in sampling analysis.

Method

The goal of this research was to investigate the precision (how close a sample statistic would be to its population parameter) of a sample of published social identity research. To investigate the question of whether social identity research findings are precise enough to be trusted, we applied the APP programs presented by Hui et al. (2020) to test the precision of the studies included in a sample of published social identity research. The present a posteriori use of the APP has been systematically employed by Trafimow and Myüz (2019) and Trafimow, Hyman, and Kostyk (2020) for experimental research but not for correlational research.

Procedure

A total sample of 75 academic papers (see Table 1) was collected, prior to data analysis, broken down into 25 papers per time period across three time periods: 2014 to 2021, 1995 to 2001, and 1975 to 1981. It was important to include a sample sufficiently diverse to be representative of the existing literature, while also ensuring that the sample broke into equal portions. The sample included articles from 46 different journals, randomly selected from the set of articles that met our criteria, from multiple academic disciplines (i.e., psychology, advertising, business, sociology, etc.). The primary criteria for selection were:

1. Must include social identity as a primary target of interest for investigation. This may be as

a theoretical concept, an applied concept, etc. This was checked via the mention of social identity in subject terms, titles, or the paper itself.
2. Must directly specify the methodology (correlational, between-subjects, etc.). This is important, as determining the method of analysis is vital to understanding the precision of particular samples using the APP equations.
3. Must have a publication date within one of the three date ranges (1975-1981, 1995-2001, 2014-2021). These date ranges were chosen as an exploratory (not exhaustive) representation of research across time.

The articles were picked using the institutional library search tool. Keywords used to filter results were as follows: social identity, social identity theory, SIT, experimental, correlational, and research. Articles were picked using a random method of 2 articles per results page starting from the top. If the article did not specify social identity, the research method, or was outside of the appropriate date ranges, then it was skipped, and the next article was picked. Once two articles on the page were selected, we moved to the next results page and began selection again. All studies picked in this sample were quantitative leaning (i.e., analysis was done quantitatively).

Once the articles were collected, the relevant information was cataloged via an Excel spreadsheet (data available from Wilson, Trafimow, Wang, & Wang, 2021 via the OSF open-access database). The information cataloged included the citation for the paper, journal, publication year, number of studies included in the paper, sample sizes, and number of conditions. While some of this information is not pertinent for the actual precision analysis, examining differences in the means and medians by publication year and methodology type is of interest for potential broader investigations and conclusions.

To determine the precision of each study, we used the APP programs listed in Hui et al. (2020). Given sample sizes reported in the articles, and assuming a conventional 95% confidence level, the programs provide the precision level, but with a complication. Specifically, because some studies were experimental whereas others were correlational, there are mathematical reasons why the precision of the correlational studies cannot be compared directly to the precision of the experimental studies (Wang et al., 2021)[1]. Consequently, results pertaining to experimental studies and results pertaining to correlational studies will be presented separately.

Results

There were too few mixed designs for analysis and so we focused on between-participants experimental studies and correlational studies. For experimental studies, the mean precision level was 0.51 (SD = .25) and the median precision level was 0.50 (n = 39). These findings support a pessimistic view of experimental social identity research. For correlational studies, the mean precision level was 0.24 (SD = .16) and the median precision level was 0.20 (n = 55). However, we reiterate that the precision of correlational research cannot be compared to the precision of experimental research. As correlations range from -1 to +1, and the precision value pertains to the fraction of a variance (not a fraction of a standard deviation), the degree to which this level of precision in correlational research is pessimistic or optimistic is a judgment call. Certain theories and paradigms may require more stringent cutoffs for what is considered optimistic or pessimistic, and since correlational APP equations use variance instead of standard deviation in analysis, the cutoffs are a judgment call of the researcher.

To evaluate the effect of the year of publication on precision, we performed multiple correlational analyses. First, we obtained mean and median precision levels across the three time periods for the experimental research. The mean precision levels were 0.59 (n = 17, SD = .20), 0.64 (n = 10, SD = .24), and 0.29 (n = 12, SD = .16) for the most distant to most recent time periods, respectively. The corresponding median precision levels were 0.59 (n = 17), 0.71 (n = 10), and 0.23 (n = 12). With respect to correlational research, the mean precision levels were 0.23 (n = 11, SD = .09), 0.27 (n = 24, SD = .19), and 0.21 (n = 20, SD = .15) for the most distant to most recent time periods, respectively. The corresponding median precision levels for correlational studies were 0.25 (n = 11), 0.23 (n = 24), and 0.18 (n = 20). Overall, both correlational and experimental precisions have shown improvement over time, with experimental studies showing much more improvement than correlational studies.

Second, we correlated precision with the year of

[1] These include that correlations are bounded (-1, +1) and that the precision level refers to a squared standard deviation (variance) as opposed to a standard deviation.

publication. Because smaller values indicate better precision, an optimistic perspective suggests a negative correlation whereas a pessimistic perspective suggests no correlation or a positive correlation. The correlation was -0.445 (n = 39, p = .004) for experimental research and -0.056 (n = 55, p = .687) for correlational research. Figure 1 contains a scatterplot pertaining to experimental research and Figure 2 contains a scatterplot pertaining to correlational research, both with the best fit trendline to examine the progression of the data.

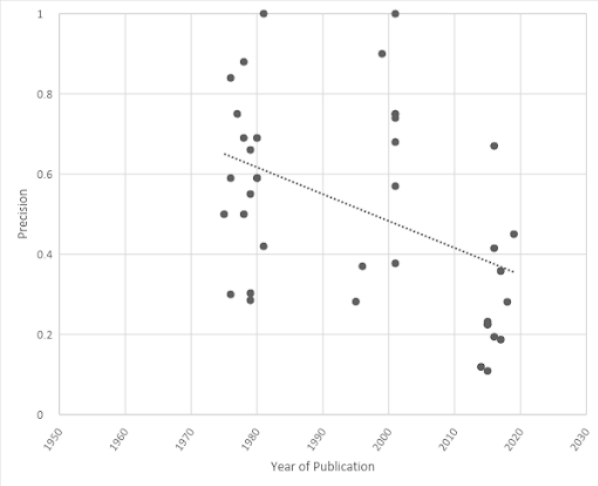

Figure 1. Scatterplot representing precision of experimental social identity research along the vertical axis as a function of year of publication along the horizontal axis.

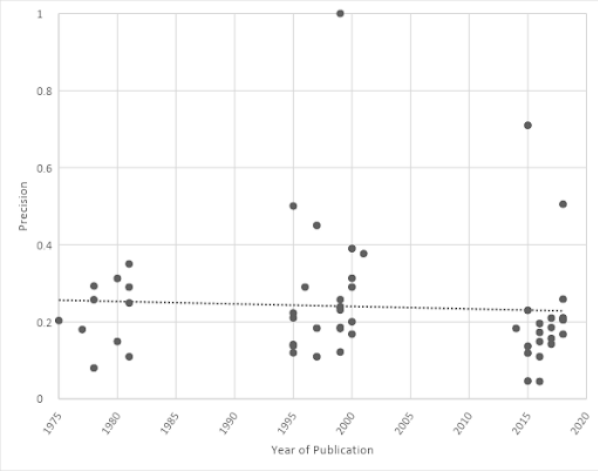

Figure 1. Scatterplot representing precision of correlational social identity research along the vertical axis as a function of year of publication along the horizontal axis.

From the data presented in Figure 1, we can see a clear negative trend across time. As the publication year becomes more recent, the precision level moves further towards zero, indicating a promising improvement in experimental precision. In contrast, Figure 2 does not show much of an effect of time on correlational precision. These time-period correlations should be taken as exploratory however due to the small sample sizes within each time period.

Discussion

Social identity research composes an important domain within social psychology that is relevant to other fields too such as marketing, sociology, and others. Hence, it is unsurprising that there is a large literature and many arguments both praising and criticizing social identity theory. The present work is agnostic about the larger social identity issues briefly mentioned earlier. This is not to say that these issues are unimportant; in contrast, we believe they are very important. However, we also believe that if empirical facts are going to be used either to test theories or to provide the foundation for theory formation, it is crucial to be clear that the empirical facts really are factual. That is, it is a prerequisite that researchers have good reason to believe that the sample statistics researchers report are reasonably good estimates of corresponding population parameters. Our goal was to test whether this prerequisite has been met in a sample of published research.

The picture is very clear with respect to experimental research. Sample sizes are simply insufficient, thereby resulting in precision levels that one would consider untrustworthy. It is true that there are many factors that can create these insufficient numbers such as funding constraints, time, feasibility, and more. However, this does not disqualify the conclusion of insufficient sample sizes, but only increases the need for more detailed and stringent research practices. It is important to note that quality research with smaller sample sizes is still very much alive and is in no way disqualified due to sampling precision. Instead, sampling precision should be taken as an additional tool to assist researchers, in an a priori fashion, to determine a sample size needed for sample statistics that meet their corresponding population parameters, in essence giving researchers a goal for their eventual work to shoot for.

There is some good news, which is that precision is improving, with research in the most recent period of research exhibiting more precision than research in previous periods. But even with the improvement, it would be difficult to argue that the level of preci-

sion is sufficient. However, Trafimow and Myüz (2019) demonstrated imprecision with respect to five areas of psychology (social, developmental, clinical, cognitive, and neuro), and Trafimow, Hyman, and Kostyk (2020) demonstrated imprecision with respect to marketing, there is no reason to be more pessimistic with respect to social identity research than other social science research. It is perhaps better to view social identity research as another domain in which researchers should devote increased research efforts in the direction of improved precision.

As the present work constitutes the first systematic application of the APP to correlational research, the correlational analyses are better considered exploratory than definitive. Correlational research offers both advantages and disadvantages relative to experimental research. From an APP perspective, an advantage of correlational research is that there is only one group, thereby rendering precision easier to obtain. Going beyond an APP perspective, correlational research can be argued to be more representative of reality because of a lack of potentially artificial laboratory-induced manipulation. In addition, it is easier to obtain diverse samples in correlational contexts, though the recent proliferation of web-performed experiments is reducing this difference.

But there are disadvantages too. From an APP perspective, a disadvantage is the lack of previous systematic APP applications to correlation coefficients, thereby rendering comparison difficult. This is not a fault of the correlational research itself, but rather due to the historical fact that APP equations applicable to experimental data were developed prior to APP equations applicable to correlational data, and thus the basic assumptions underlying the equations cannot be directly compared on an "A = B" comparison. More generally, it is well-known that correlational research provides a less convincing case for causal mechanisms than experimental research. On the other hand, however, given the present demonstration of the lack of precision of experimental social identity research, it is not clear that even the experimental findings provide strong causal evidence. If a sample mean difference cannot be trusted to reasonably estimate the population mean difference, a strong causal conclusion is contraindicated. Therefore, the disadvantage of correlational research paradigms relative to experimental research paradigms might be considered decreased in the context of small sample experimental research.

Major implications can be discussed surrounding sampling precision and how it might affect social identity research and theoretical findings of social identity theory. It is important, as mentioned previously, to have sample statistics that are good estimates of corresponding population parameters. Without this, basic assumptions of the applicability of theories and sample findings are not met. If sampling precision for research in social identity work is consistently low across the board, with no real attempt to improve, then the replicability of those findings is in jeopardy. Given the major push by scientific advocates for greater replicability in scientific research, especially in social sciences, this means that sampling precision is a vital step towards a more open and truthful scientific discipline. If sampling precision were to remain low, the findings of social research and the applicability of theories developed from those findings would be questionable at best.

As always with scientific research, there are some limitations. One limitation is that we only tested three time periods. This of course was done due to time constraints as well as the exploratory (rather than final) nature of the research. A second limitation is that the sample size of the studies included was limited (again due to time constraints). Thus, conclusions may be clear, but a more comprehensive analysis with a much larger sample size would provide a more detailed and stringent review of sampling precision in a posteriori fashion. Unfortunately, no APP techniques have yet been developed to estimate the number of studies that should be included in an analysis such as that conducted here, and so traditional APP techniques are invalid to determine the sample size for a meta-style analysis of this kind. A third limitation is that, even within social identity research, there are research categories not addressed here. For example, there is social identity research with a basic or applied focus, a focus on integrating other literature, and many others.

Of course, one potential avenue for future research is to address the foregoing limitations. A second potential avenue is to expand to domains that are not precisely about social identity but are related. These could include work in attachment, aggression, or stereotyping. A third avenue is to pursue non normal distributions. Because the researchers in the experimental papers all performed statistics based on the assumption of normality, we used that assumption too in the present analyses for the sake of consistency. However, this assumption is likely wrong,

as most distributions are skewed (Blanca et al., 2013; Ho & Yu, 2015; Micceri, 1989). The usual counter to skewness arguments is that the Central Limit Theorem renders deviations from normality unimportant, but that depends on the goal of the research. For example, for the family of skew normal distributions, Trafimow, Wang, and Wang (2019; 2021) have demonstrated that there are important precision gains to be had for analyses analogous to those conducted here, even under low levels of skewness, provided that the researcher focuses on locations as opposed to means. Because locations are a parameter of skew normal distributions, whereas means are not, it makes sense to use locations rather than means anyway as locations are the more generally applicable parameter. And because the location equals the mean when there is normality, nothing is lost by including locations in APP analyses, even in the rare cases where the normality assumption is true. It is also important to note again that this research is not an examination of the accuracy of social identity theory itself and is not limited to "social identity researchers" in the traditional sense (that is those who test the theory of SIT). The goal of this research was to examine a broad and eclectic mix of social identity applications.

In conclusion, the notion that theory should be checked against reality is a staple of science, including the social sciences. But the reality in the social sciences tends to be characterized by summary statistics such as means, standard deviations, correlation coefficients, etcetera. Social scientists do not obtain such sample summary statistics as ends in themselves. Rather, social scientists obtain sample summary statistics because of the faith they have that these provide good estimates of corresponding population parameters. In contrast, the foregoing analyses demonstrate that the sample statistics on which research involving social identity depends cannot be trusted as accurate estimators of corresponding population parameters. We hope and expect that the present work will stimulate social identity research to focus on the preliminary issue of obtaining trustworthy empirical facts, as a prerequisite to resolving the important conceptual issues of consuming interest.

References

*Starred references indicate an article used in analysis. Non-starred references indicate articles used in the manuscript.

*Afshari, L., Young, S., Gibson, P. and Karimi, L. (2019), "Organizational commitment: exploring the role of identity", *Personnel Review*, Vol. 49 No. 3, pp. 774-790. https://doi.org/10.1108/PR-04-2019-0148

*Alsos, G., Clausen, T., Hytti, U., & Solvoll, S. (2016). Entrepreneurs' social identity and the preference of causal and effectual behaviours in start-up processes. *Entrepreneurship and Regional Development*, 28(3-4), 234–258. Doi: 10.1080/08985626.2016.1155742

*Arroyo, C. G., & Zigler, E. (1995). Racial identity, academic achievement, and the psychological well-being of economically disadvantaged adolescents. *Journal of Personality and Social Psychology,* 69(5), 903–914. doi: 10.1037/0022-3514.69.5.903

*Bat-Chava, Y. (2000). Diversity of Deaf Identities. *American Annals of the Deaf*, 145(5), 420–428. doi: 10.1353/aad.2012.0176

*Baumberg, B. (2016). The stigma of claiming benefits: A quantitative study. *Journal of Social Policy*, 45(2), 181-199. doi:10.1017/S0047279415000525

*Ben-Nun Bloom, P., Arikan, G., & Courtemanche, M. (2015). Religious Social Identity, Religious Belief, and Anti-Immigration Sentiment. *American Political Science Review,* 109(2), 203-221. doi:10.1017/S0003055415000143

*Bezdek, W. (1976). Sex Identity, Values and Balance Theory. *Sociometry*, 39(2), 142–153. doi: 10.2307/2786214

Blanca, M. J., Arnau, J., López-Montiel, D., Bono, R., & Bendayan, R. (2013). Skewness and kurtosis in real data samples. M*ethodology: European Journal of Research Methods for the Behavioral and Social Sciences*, 9(2), 78-84. doi: 10.1027/1614-2241/a000057

*Blumstein, P. W. (1975). Identity bargaining and self-conception, *Social Forces*, 53(3), 476–485. doi: 10.2307/2576590

Brown, R. (2000). Social identity theory: Past achievements, current problems, and future challenges, *European Journal of Social Psychology*, 30, 745-778. doi: 10.1002/1099-0992(200011/12)30:63.0.CO;2-O

*Brown, R. J. & Turner, J. C. (1979) The criss-cross categorization effect in intergroup discrimination, *British Journal of Social and Clinical Psychology*, 18, 371-383. doi: 10.1111/j.2044-8260.1979.

tb00907.x

*Bruner, M., Boardley, I., Benson, A., Wilson, K., Root, Z., Turnnidge, J., Sutcliffe, J., & Côté, J. (2017). Disentangling the Relations between Social Identity and Prosocial and Antisocial Behavior in Competitive Youth Sport. *Journal of Youth and Adolescence*. 47. doi: 10.1007/s10964-017-0769-2.

*Burke, P., & Reitzes, D. (1981). The Link Between Identity and Role Performance. *Social Psychology Quarterly*, 44(2), 83–92. doi: 10.2307/3033704

*Burris, C., & Jackson, L. (2000). Social identity and the true believer: Responses to threatened self-stereotypes among the intrinsically religious. *British Journal of Social Psychology*, 39(2), 257–278. doi: 10.1348/014466600164462

*Cancian, F., & Davis, M. (1981). Social Structure and Situations: The effects of Roles, Actions, and Situations on Interpersonal Perception. *Sociological Inquiry*, 51(2), 105–111. doi: 10.1111/j.1475-682X.1981.tb01033.x

*Cardenas, D. & de la Sablonnière, R. (2019). Participating in a new group and the identification processes: The quest for a positive social identity. *British Journal of Social Psychology*. 59. doi: 10.1111/bjso.12340.

*Carmeli, A., Brammer, S., Gomes, E., & Tarba, S. (2017). An organizational ethic of care and employee involvement in sustainability-related behaviors: A social identity perspective: An Ethic of Care and Sustainability Behaviors. *Journal of Organizational Behavior*. doi: 10.1002/job.2185.

*Chadborn, D., & Reysen, S. (2018). Moved by the Masses: A Social Identity Perspective on Inspiration. *Current Psychology*. 37. 625-631. doi: 10.1007/s12144-016-9545-9.

*Chakravarty, S., Fonseca, M. A., Ghosh, S., & Marjit, S. (2016) Religious Fragmentation, Social Identity and Conflict: Evidence from an Artefactual Field Experiment in India. *PLoS ONE* 11(10). doi: 10.1371/journal.pone.0164708

*Cheng, C., Bartram, T., Karimi, L., & Leggat, S. (2016). Transformational leadership and social identity as predictors of team climate, perceived quality of care, burnout and turnover intention among nurses. *Personnel Review*, 45(6), 1200–1216. doi: 10.1108/pr-05-2015-0118

*Christian, J., Gadfield, N. J., Giles, H., & Taylor, D. M. (1976). The multidimensional and dynamic nature of ethnic identity. *International Journal of Psychology*, 11(4), 281. doi: 10.1080/00207597608247363

*Clark, A., Hocevar, D., & Dembo, M. H. (1980). The role of cognitive development in children's explanations and preferences for skin color. *Developmental Psychology*, 16(4), 332–339. doi: 10.1037/0012-1649.16.4.332

*Deseran, F. A., & Chung, C-S. (1979). Appearance, Role-Taking, and Reactions to Deviance: Some Experimental Findings. *Social Psychology Quarterly,* 42(4), 426–430. doi: 10.2307/3033815

*Devine, C. (2014). Ideological Social Identity: Psychological Attachment to Ideological In-Groups as a Political Phenomenon and a Behavioral Influence. *Political Behavior,* 37(3), 509–535. doi: 10.1007/s11109-014-9280-6

*Dietz-Uhler, B. (1996). The escalation of commitment in political decision-making groups: a social identity approach. *European Journal of Social Psychology*, 26(4), 611–629. doi: 10.1002/(SICI)1099-0992(199607)26:4<611::AID-EJSP781>3.0.CO;2-6

*Ely, R. J. (1995). The Power in Demography: Women's Social Constructions of Gender Identity at Work. *Academy of Management Journal*, 38(3), 589–634. doi: 10.2307/256740

*Forgas, J. P. (1981). Responsibility attribution by groups and individuals: the effects of the interaction episode. *European Journal of Social Psychology*, 11(1), 87–99. doi: 10.1002/ejsp.2420110106

*Fryrear, J. L., Nuell, L. R., & White, P. (1977). Enhancement of male juvenile delinquents' self-concepts through photographed social interactions. *Journal of Clinical Psychology*, 33(3), 833–838. doi: 10.1002/1097-4679(197707)33:3<833::AID-JCLP2270330347>3.0.CO;2-N

*Gagnon, A., & Bourhis, R. (1996). Discrimination in the Minimal Group Paradigm: Social Identity or Self-Interest? *Personality and Social Psychology Bulletin*, 22(12), 1289–1301. doi: 10.1177/01461672962212009

*Gangadharan, L., Jain, T., Maitra, P., & Vecci, J. (2016). Social identity and governance: The behavioral response to female leaders. *European*

Economic Review, 90, 302–325. doi: 10.1016/j.euroecorev.2016.01.003

*Genesee, F., Tucker, G. R., & Lambert, W. E.. (1978). The Development of Ethnic Identity and Ethnic Role Taking Skills in Children from Different School Settings. *International Journal of Psychology,* 13(1), 39. doi: 10.1080/00207597808246613

*Giles, H., Llado, N., McKirnan, D. J., & Taylor, D. M. (1979). Social Identity in Puerto Rico. *International Journal of Psychology*, 14(1–4), 185–201. doi: 10.1080/00207597908246730

*Goll, J.C., Charlesworth, G., Scior, K., & Stott, J. (2015) Barriers to Social Participation among Lonely Older Adults: The Influence of Social Fears and Identity. *PLoS ONE* 10(2), 1-17. doi: 10.1371/ journal.pone.0116664

*Grant, P. R., & Brown, R. (1995). From Ethnocentrism to Collective Protest: Responses to Relative Deprivation and Threats to Social Identity. *Social Psychology Quarterly,* 58(3), 195–212. Doi: 10.2307/2787042

*Grant, P., Abrams, D., Robertson, D., & Garay, J. (2014). Predicting Protests by Disadvantaged Skilled Immigrants: A Test of an Integrated Social Identity, Relative Deprivation, Collective Efficacy (SIRDE) Model. *Social Justice Research*, 28(1), 76–101. doi: 10.1007/s11211-014-0229-z

*Haslam, S., & Platow, M. (2001). The Link between Leadership and Followership: How Affirming Social Identity Translates Vision into Action. *Personality & Social Psychology Bulletin*, 27(11), 1469–1479. doi: 10.1177/01461672012711008

*Haslam, S., Oakes, P., Reynolds, K., & Turner, J. (1999). Social Identity Salience and the Emergence of Stereotype Consensus. *Personality & Social Psychology Bulletin,* 25(7), 809–818. doi: 10.1177/0146167299025007004

*Hennessy, J., & West, M. (1999). Intergroup Behavior in Organizations: A Field Test of Social Identity Theory. *Small Group Research,* 30(3), 361–382. doi: 10.1177/104649649903000305

Ho, A. D., & Yu, C. C. (2015). Descriptive statistics for modern test score distributions: Skewness, kurtosis, discreteness, and ceiling effects. *Educational and Psychological Measurement,* 75(3), 365-388. doi: 10.1177/0013164414548576

*Hofman, J. E., & Rouhana, N. (1976). Young Arabs in Israel: Some Aspects of a Conflicted Social Identity. *Journal of Social Psychology*, 99(1), 75. doi: 10.1080/00224545.1976.9924750

Hogg, M. A. & Abrams, D. (1988). *Social Identifications: A Social Psychology of Intergroup Relations and Group Processes.* London: Routledge.

Hogg, M. A., & Turner, J. C. (1985). Interpersonal attraction, social identification, and psychological group formation. *European Journal of Social Psychology*, 15, 51-66. doi: 10.1002/ejsp.2420150105

*Hopkins, N., Reicher, S., Khan, S., Tewari, S., Srinivasan, N., & Stevenson, Clifford. (2015). Explaining effervescence: Investigating the relationship between shared social identity and positive experience in crowds. *Cognition & emotion*. 30. 1-13. doi: 10.1080/02699931.2015.1015969.

*Hughes, M., Kiecolt, K., Keith, V., & Demo, D. (2015). Racial Identity and Well-Being among African Americans. *Social Psychology Quarterly,* 78(1), 25-48. doi: 10.2307/44075387

Hui., L., Trafimow, D., Wang, T., Wang, C., & Hu, L. (2020). User-friendly computer programs so econometricians can run the a priori procedure. *Frontiers in Management and Business*. 1(1), 2-6. doi: 10.25082/FMB.2020.01.002

*Jackson, J. W., & Smith, E. R. (1999). Conceptualizing Social Identity: A New Framework and Evidence for the Impact of Different Dimensions. *Personality and Social Psychology Bulletin*, 25(1), 120–135. doi: 10.1177/0146167299025001010

*Jetten, J., Dane, S., Williams, E., Liu, S., Haslam, C., Gallois, C., & McDonald, V. (2018). Ageing well in a foreign land as a process of successful social identity change. *International Journal of Qualitative Studies on Health and Well-Being*, 13(1), 1508198–.doi:10.1080/17482631.2018.1508198

*Khan, S., Hopkins, N., Reicher, S., Tewari, S., Srinivasan, N., & Stevenson, C. (2015). How Collective Participation Impacts Social Identity: A Longitudinal Study from India. *Political Psychology*. 37. doi: 10.1111/pops.12260.

*Kim, J., & Kim, J. (2018). Effects of social identity and schadenfreude on attitude toward brand sponsoring an instant replay review: The moderating role of rivalry and suspense. *Journal of Consumer Behaviour*. doi: 10.1002/cb.1738.

*Kirk, L., & Burton, M. (1977). Meaning and Context: A Study of Contextual Shifts in Meaning of Maasai Personality Descriptors. *Ameri-*

can Ethnologist, 4(4), 734–761. doi: 10.1525/ae.1977.4.4.02a00090

*Klein, O., & Azzi, A. (2001). Do High-Status Groups Discriminate More? Differentiating between Social Identity and Equity Concerns. *Social Behavior & Personality: An International Journal,* 29(3), 209–221. doi: 10.2224/sbp.2001.29.3.209

Korte, R. F. (2007). A review of social identity theory with implications for training and development, *Journal of European Industrial Training*, 31(4), 166-180. doi: 10.1108/03090590710739250

*Kugihara, N. (2001). Effects of aggressive behaviour and group size on collective escape in an emergency: A test between a social identity model and deindividuation theory. *British Journal of Social Psychology*, 40(4), 575. doi: 10.1348/014466601164993

*Laverie, D., & Arnett, D. (2000). Factors Affecting Fan Attendance: The Influence of Identity Salience and Satisfaction. *Journal of Leisure Research*, 32(2), 225–246. doi: 10.1080/00222216.2000.11949915

Long, K.M., Spears, R., & Manstead, A.S.R. (1994). The influence of personal and collective self-esteem on strategies of social differentiation, *British Journal of Social Psychology* 33, 313-329. doi: 10.1111/j.2044-8309.1994.tb01028.

*McGowan, M., Shiu, E., & Hassan L. M. (2017). The Influence of Social Identity on Value Perceptions and Intention. *Journal of consumer behaviour*.16(3), 242–253. doi: 10.1002/cb.1627

*McKirnan, D. (1980). The identification of deviance: A conceptualization and initial test of a model of social norms. *European Journal of Social Psychology,* 10(1), 75–93. doi: 10.1002/ejsp.2420100106

Micceri, T. (1989). The unicorn, the normal curve, and other improbable creatures. *Psychological. Bulletin*, 105(1), 156-166. doi: 10.1037/0033-2909.105.1.156

*Millward, L. J. (1995). Contextualizing social identity in considerations of what is means to be a nurse. *European Journal of Social Psychology, 25*(3), 303–324. doi: 10.1002/ejsp.2420250305

*Moore, C. W., & Pride, W. M. (1980). Selected Effects of Qualifying Statements Regarding Technical Performance Claims: An Experimental Investigation. *Journal of Advertising,* 9(2), 20–44. doi: 10.1080/00913367.1980.10673315

*Morton, T., & Duck, J. (2000). Social Identity and Media Dependency in the Gay Community: The Prediction of Safe Sex Attitudes. *Communication Research*, 27(4), 438–460. doi: 10.1177/009365000027004002

*Mummendey, A., Kessler, T., Klink, A., & Mielke, R. (1999). Strategies to Cope With Negative Social Identity: Predictions by Social Identity Theory and Relative Deprivation Theory. *Journal of Personality and Social Psychology*, 76(2), 229–245. doi: 10.1037/0022-3514.76.2.229

*Murnieks, C., McMullen, J., & Cardon, M. (2017). Does Congruence with an Entrepreneur Social Identity Encourage Positive Emotion Under Environmental Dynamism?. *Journal of Small Business Management*. doi: 10.1111/jsbm.12335.

*Myaskovsky, L., & Wittig, M. (1997). Predictors of feminist social identity among college women. *Sex Roles,* 37(11), 861–883. doi: 10.1007/BF02936344

*Nauroth, P., Gollwitzer, M., Bender, J., & Rothmund, T. (2015) Social Identity Threat Motivates Science-Discrediting Online Comments. *PLoS ONE*, 10(2). doi: 10.1371/journal.pone.0117476

*Ng, S. (1978). Minimal Social Categorization, Political Categorization, and Power Change. *Human Relations*, 31(9), 765–779. doi: 10.1177/001872677803100902

*Oakes, P. J., & Turner, J. C. (1980). Social categorization and intergroup behaviour: does minimal intergroup discrimination make social identity more positive?, *European Journal of Social Psychology,* 10(3), 295–301. doi: 10.1002/ejsp.2420100307

*Platow, M. J., Durante, M., Williams, N., Garrett, M., Walshe, J., Cincotta, S., Lianos, G., & Barutchu, A. (1999). The contribution of sport fan social identity to the production of prosocial behavior. *Group Dynamics: Theory, Research, and Practice*, 3(2), 161–169. doi: 10.1037/1089-2699.3.2.161

*Platow, M., & van Knippenberg, D. (2001). A Social Identity Analysis of Leadership Endorsement: The Effects of Leader Ingroup Prototypicality and Distributive Intergroup Fairness. *Personality and Social Psychology Bulletin*, 27(11), 1508–1519. doi: 10.1177/01461672012711011

Pratt, M.G. (2003), "Disentangling collective identi-

ties", in Polzer, J.T. (Ed.), *Identity Issues in Groups*, Elsevier Science, Amsterdam, pp. 161-188. doi: 10.1016/s1534-0856(02)05007-7

*Reitzes, D. C. (1980). College Student Identities and Behaviors, *Sociological Focus*, 13(2), 113–124. Doi: 10.1080/00380237.1980.10570365

*Rotondi Jr., T. (1975). Organizational Identification and Group Involvement. *Academy of Management Journal,* 18(4), 892–897. doi: 10.2307/255389

Rubin, M., & Hewstone, M. (1998). Social Identity Theory's self-esteem hypothesis: a review and some suggestions for clarification, *Review of Personality and Social Psychology,* 2, 40-62. doi: 10.1207/s15327957pspr0201_3

*Scott, C. R. (1999). The Impact of Physical and Discursive Anonymity on Group Members' Multiple Identifications During.. *Western Journal of Communication*, 63(4), 456. doi: 10.1080/10570319909374654

*Sheikh, H., Gómez, A., & Atran, S. (2016). Empirical Evidence for the Devoted Actor Model. *Current Anthropology*. 57. S204-S209. doi: 10.1086/686221.

*Shih, M., Pittinsky, T., & Ambady, N. (2016). Stereotype Susceptibility: Identity Salience and Shifts in Quantitative Performance. *Psychological Science,* 10(1), 80–83. doi: 10.1111/1467-9280.00111

*Simon, R. (1997). The Meanings Individuals Attach to Role Identities and Their Implications for Mental Health. *Journal of Health and Social Behavior*, 38(3), 256–274. doi: 10.2307/2955370

*Skevington, S. M. (1981). Intergroup relations and nursing. *European Journal of Social Psychology,* 11(1), 43–59. Doi: 10.1002/ejsp.2420110103

*Smith-Lovin, L. (1979). Behavior Settings and Impressions Formed from Social Scenarios. *Social Psychology Quarterly*, 42(1), 31–43. doi: 10.2307/3033871

Stets, J. E., & Burke, P. J. (2000). Identity Theory and Social Identity Theory. *Social Psychology Quarterly*, 63(3), 224–237. doi: 10.2307/2695870

Tajfel, H. (1978). Social categorization, social identity and social comparison. In H. Tajfel (Ed.), Differentiation between social groups: *Studies in the social psychology of intergroup relations* (pp. 61–76). London, UK: Academic Press.

*Taylor, D. M., & Guimond, S. (1978). The Belief Theory of Prejudice in an Intergroup Context. *Journal of Social Psychology*, 105(1), 11. doi: 10.1080/00224545.1978.9924085

*Terry, D., Hogg, M., & White, K. (1999). The theory of planned behaviour: Self-identity, social identity and group norms. *British Journal of Social Psychology*, 38(3), 225–244. doi: 10.1348/014466699164149

*Thoits, P. (1995). Identity-Relevant Events and Psychological Symptoms: A Cautionary Tale. *Journal of Health and Social Behavior,* 36(1), 72–82. doi: 10.2307/2137288

Trafimow, D. (2017). Using the coefficient of confidence to make the philosophical switch from a posteriori to a priori inferential statistics. *Educational and Psychological Measurement,* 77(5), 831 – 854. doi: 10.1177/0013164416667977

Trafimow, D. (2018). An a priori solution to the replication crisis. *Philosophical Psychology,* 31(8), 1188-1214. doi: 10.1080/09515089.2018.1490707

Trafimow, D. (2019). A frequentist alternative to significance testing, p-values, and confidence intervals. *Econometrics*, 7(2), 1-14. doi: 10.3390/econometrics7020026

Trafimow, D. T., Hyman, M. R., & Kostyk, A. (2020). The (im)precision of scholarly consumer behavior research. *Journal of Business Research*, 114, 93-101. doi: 10.1016/j.jbusres.2020.04.008

Trafimow, D., & MacDonald, J. A. (2017). Performing inferential statistics prior to data collection. *Educational and Psychological Measurement,* 77(2), 204-219. doi:10.1177/0013164416659745

Trafimow, D., & Myüz, H. A. (2019). The sampling precision of research in five major areas of psychology. *Behavior Research Methods*, 51, 2039-2058, doi: 10.3758/s13428018-1173-x.

Trafimow, D., Wang, T., & Wang, C. (2019). From a sampling precision perspective, skewness is a friend and not an enemy! *Educational and Psychological Measurement,* 79(1), 129-150. doi: 10.1177/0013164418764801

Trafimow, D., Wang, C., & Wang, T. (2020). Making the a priori procedure (APP) work for differences between means. *Educational and Psychological Measurement*, 80(1), 186-198. doi:10.1177/0013164419847509

Trafimow, D., Wang, T., & Wang, C. (2021). A viable approach to mitigating irreproducibility. *Stats*, 4,

205–215. doi: 10.3390/stats4010015

*van Knippenberg, A., Wilke, H., & De Vries, N. K. (1981). Social comparison on two dimensions. *European Journal of Social Psychology*, 11(3), 267–283. doi: 10.1002/ejsp.2420110303

*Vaughan, G. M. (1978). Social change and intergroup preferences in New Zealand. *European Journal of Social Psychology,* 8(3), 297–314. doi: 10.1002/ejsp.2420080304

*Wenzel, M. (2001). A social categorization approach to distributive justice: social identity as the link between relevance of inputs and need for justice. *British Journal of Social Psychology*, 40(3), 315–335. doi: 10.1348/014466601164858

Wang C., Wang T., Trafimow D., Li H., Hu L., Rodriguez A. (2021) Extending the A Priori Procedure (APP) to Address Correlation Coefficients. In: Ngoc Thach N., Kreinovich V., Trung N.D. (Eds.), *Data Science for Financial Econometrics: Studies in Computational Intelligence*, vol 898. Springer, Cham. doi: 10.1007/978-3-030-48853-6_10

Wilson, C., Trafimow, D., Wang, T., & Wang, C. (2021, April 7). Evaluating the Precision of Published Research on Social Identity Theory. Retrieved from https://osf.io/na75s/?view_only=2ff5655a16a240aba8c867780e75a6c6

Yuki, M. (2003). Intergroup Comparison Versus Intragroup Relationships: A Cross-Cultural Examination of Social Identity Theory in North American and East Asian Cultural Contexts, *Social Psychology Quarterly,* 66(2), 166-183. doi: 10.2307/1519846

*Zwettler, C., Reiss, N., Rohrmann, S., Warnecke, I., Luka-Krausgrill, U., & van Dick, R. (2018). The relation between social identity and test anxiety in university students. *Health Psychology Open,* 5(2), doi: 10.1177/2055102918785415

Table 1

Citations of Included Studies, Broken Down by Whether they are Experimental or Correlational and by Time Period.
**For data please contact first author*

Time period	Reference	Study 1 Design	Study 2 Design	Study 3 Design
2014-2021	Gangadharan, Jain, Maitra, & Vecci, (2016)	Mixed Methods		
2014-2021	Afshari, Young, Gibson, & Karimi, L. (2019)	Mixed Methods		
2014-2021	Cardenas & de la Sablonnière (2019)	Experimental		
2014-2021	Khan, Hopkins, Reicher, Tewari, Srinivasan, & Stevenson (2015)	Correlational		
2014-2021	Sheikh, Gómez, & Atran (2016)	Correlational	Correlational	
2014-2021	Murnieks, McMullen, & Cardon (2017)	Correlational		
2014-2021	Kim & Kim (2018)	Experimental		
2014-2021	Bruner, Boardley, Benson, Wilson, Root, Turnnidge, Sutcliffe, & Côté (2017)	Correlational		
2014-2021	Hopkins, Reicher, Khan, Tewari, Srinivasan, & Stevenson (2015)	Correlational		
2014-2021	Carmeli, Brammer, Gomes, & Tarba (2017)	Experimental	Experimental	
2014-2021	Goll, Charlesworth, Scior, & Stott (2015)	Correlational		
2014-2021	Chakravarty, Fonseca, Ghosh, & Marjit, (2016)	Experimental		
2014-2021	Chadborn, & Reysen, (2018)	Correlational	Correlational	Correlational
2014-2021	Nauroth, Gollwitzer, Bender, & Rothmund, (2015)	Correlational	Experimental	Experimental
2014-2021	Hughes, Kiecolt, Keith, & Demo, (2015)	Correlational		
2014-2021	Ben-Nun Bloom, Arikan, & Courtemanche, (2015)	Experimental	Experimental	
2014-2021	Baumberg (2016)	Correlational		
2014-2021	McGowan, Shiu, & Hassan (2017)	Correlational	Correlational	
2014-2021	Devine (2014)	Experimental		
2014-2021	Zwettler, Reiss, Rohrmann, Warnecke, Luka-Krausgrill, & van Dick (2018)	Correlational		
2014-2021	Jetten, Dane, Williams, Liu, Haslam, Gallois, & McDonald (2018)	Correlational		
2014-2021	Shih, Pittinsky, & Ambady, (2016)	Experimental	Experimental	
2014-2021	Grant, Abrams, Robertson, & Garay, (2014)	Correlational		
2014-2021	Cheng, Bartram, Karimi, & Leggat, (2016)	Correlational		
2014-2021	Alsos, Clausen, Hytti, & Solvoll, (2016)	Correlational		

Time period	Reference	Study 1 Design	Study 2 Design	Study 3 Design
1995-2001	Jackson & Smith (1999)	Correlational	Correlational	
1995-2001	Ely (1995)	Correlational		
1995-2001	Simon (1997)	Correlational		
1995-2001	Millward (1995)	Correlational		
1995-2001	Arroyo & Zigler (1995)	Correlational	Correlational	Correlational
1995-2001	Bat-Chava (2000)	Correlational	Correlational	
1995-2001	Thoits (1995)	Correlational		
1995-2001	Scott (1999)	Experimental		
1995-2001	Klein & Azzi (2001)	Experimental		
1995-2001	Laverie & Arnett (2000)	Correlational		
1995-2001	Morton & Duck (2000)	Correlational		
1995-2001	Grant & Brown (1995)	Experimental		
1995-2001	Gagnon & Bourhis (1996)	Experimental		
1995-2001	Myaskovsky & Wittig (1997)	Correlational		
1995-2001	Wenzel (2001)	Experimental	Correlational	
1995-2001	Hennessy & West (1999)	Correlational		
1995-2001	Burris & Jackson (2000)	Correlational		
1995-2001	Kugihara (2001)	Experimental	Experimental	
1995-2001	Platow, Durante, Williams, Garrett, Walshe, Cincotta, Lianos, & Barutchu (1999).	Correlational		
1995-2001	Dietz-Uhler (1996)	Correlational	Mixed Methods	
1995-2001	Terry, Hogg, & White (1999)	Correlational		
1995-2001	Haslam & Platow (2001)	Experimental	Experimental	
1995-2001	Haslam, Oakes, Reynolds, & Turner (1999)	Correlational	Correlational	
1995-2001	Platow, & van Knippenberg, (2001)	Experimental		
1995-2001	Mummendey, Kessler, Klink, & Mielke (1999)	Correlational		
1975-1981	Oakes & Turner (1980)	Experimental		
1975-1981	Deseran & Chung (1979)	Experimental		
1975-1981	Forgas (1981)	Correlational		
1975-1981	McKirnan (1980)	Correlational		
1975-1981	van Knippenberg, Wilke, & De Vries (1981)	Experimental		
1975-1981	Giles, Llado, McKirnan, & Taylor (1979)	Experimental		
1975-1981	Hofman & Rouhana (1976)	Experimental		

Time period	Reference	Study 1 Design	Study 2 Design	Study 3 Design
1975-1981	Burke & Reitzes (1981)	Correlational	Correlational	
1975-1981	Kirk & Burton (1977)	Correlational		
1975-1981	Smith-Lovin (1979)	Experimental		
1975-1981	Clark, Hocevar, & Dembo (1980)	Experimental		
1975-1981	Skevington (1981)	Correlational		
1975-1981	Vaughan (1978)	Correlational		
1975-1981	Christian, Gadfield, Giles, & Taylor (1976)	Experimental		
1975-1981	Fryrear, Nuell, & White (1977)	Experimental		
1975-1981	Rotondi Jr. (1975)	Correlational		
1975-1981	Ng (1978)	Experimental		
1975-1981	Moore & Pride (1980)	Experimental		
1975-1981	Taylor & Guimond (1978)	Experimental	Experimental	
1975-1981	Genesee, Tucker, & Lambert (1978)	Correlational	Correlational	
1975-1981	Blumstein (1975)	Experimental		
1975-1981	Brown & Turner (1979)	Experimental		
1975-1981	Bezdek (1976)	Experimental		
1975-1981	Reitzes (1980)	Correlational		
1975-1981	Cancian & Davis (1981)	Experimental		