

Building and Testing Theories: Experiences from Conducting Social Identity Research

Ying-yi Hong^{1,2}, Melody Manchi Chao², Yung-Jui Yang², and Jennifer L. Rosner²

(¹ Nanyang Technological University, Singapore) (² University of Illinois at Urbana-Champaign, USA)

Abstract: Theory building and testing is the core of scientific investigation. Based upon the lessons we have learned from conducting research in social identity and intergroup relations, we propose a four-step approach in building and testing psychological theories: (1) selecting phenomena: observing events that happen around us and around the world; (2) finding critical commonalities: identifying common components across the different events; (3) abstracting (theorizing): extracting the underlying psychological processes inform the observed commonalities, and relating the processes to new or existing theories; and (4) hypothesis testing: examining and testing the theories empirically. These four steps allow researchers to base their scientific investigation on real-life social events. We illustrate this four-step approach with examples from our research on hierarchical identity, identity hegemony, and bridging identity/symbol, and we suggest guidelines for conducting programmatic research in social and personality psychology.

Key words: building theories; testing theories; social identity; intergroup relations

“There is nothing so practical as a good theory.”

Kurt Lewin

Kurt Lewin’s quote is perhaps one of the most well-known adages in psychology. It is never too excessive to emphasize the value and importance of theories in social psychology, as they are fundamental to research and scientific discoveries. Without theories, we would approach social phenomena in a piece-meal, descriptive, and post hoc manner. Importantly, the function of a theory is to guide researchers in formulating research questions and hypotheses and in selecting or creating the appropriate methods and analytical (statistical) strategies for testing those hypotheses. Social and personality psychology is

characterized by creative and diverse research methods, ranging from participant-observation, psychometric test construction, experimental manipulation, to neuroimaging, to name a few (see the *Handbook of Research Methods of Social and Personality Psychology* by Reis and Judd, 2000). However, without knowing what goals they want to attain (i.e., what theory to test), researchers would easily drown in the sea of potential methodologies; at the same time, we do not mean to discourage the learning of research methods. On the contrary, we feel that it is important for all researchers to fill their research toolboxes with a diverse set of tools (research methods), and at the same time be aware that the methods used should be guided by theories. In effect, a theory is to a research method as a horse is to a carriage. Putting the carriage in front of the horse would never work. Take painting as another metaphor. Artists need to acquire various skills in painting, such as using linear perspectives in creating depth. However, these skills are just a

Received date: 2008-11-12

This research is partially supported by a grant from Nanyang Business School (Reference Number: RCC6/2008/NBS) and an Academic Research Fund (AcRF) Tier 1 grant awarded to the first author of the paper. Correspondence related to this paper should be sent to Ying-yi Hong, Nanyang Business School, SMO, Nanyang Avenue, Singapore 639798; E-mail: yyhong@ntu.edu.sg.

means in achieving the end of expressing the artist's thoughts and visions. A piece of artwork that demonstrates the artist's skill but that lacks the backing of her intent would be like a program of research that demonstrates methodological sophistication but that lacks a theoretical foundation. Therefore, we decided to devote this paper to the discussion of testing theories, and we propose a four-step approach to attain this goal. We would like to caution readers that there are many possible approaches to research; therefore our four-step approach should be treated as a guideline for researchers, rather than as the *only* approach.

In the following, we will provide an overview of the four-step approach. In a nutshell, we build and test theories by paying close attention to social events and phenomena that happen around us and around the world. This "socially grounded" approach guides us in finding crucial commonalities among events and allows us to formulate hypotheses to be tested in experiments. We will use three examples from our own research on social identity and intergroup relations to illustrate our socially grounded approach of theory testing, and will furnish these examples with the specific research methods we utilized. Before we embark upon the journey, however, it is important to first define what a theory is and to discuss the characteristics of a good theory.

What is a Theory?

According to the United States National Academy of Sciences (2005), a theory is defined in science as "a comprehensive explanation of an important feature of nature supported by facts gathered over time. Theories also allow scientists to make predictions about as yet unobserved phenomena".

It is widely agreed upon in the scientific community that a good theory needs to be falsifiable, i.e., that it can be refuted by empirical testing (Popper, 1959). A theory can only be accepted as a tentatively best model but can be

replaced or revised when new information has arisen to refute it. Aside from being falsifiable, a good theory should be coherent (logical and internally consistent), economical (parsimonious), and able to explain a good range of known findings and predict future observations (Higgins, 2004). In addition, and most importantly, a good theory is generative of new ideas and new discoveries. "Scientists are not [only] in the business of testing hypotheses. They are in the business of making discoveries. The acid test for a theory is whether its logic compels a process of reasoning that concludes with an implication, often surprising, that suggests new research that otherwise would not be done – research that ends in a discovery" (Higgins, 2004, p. 142).

It is also noteworthy that theories are products of researchers' construction of reality, and thus are inevitably colored by the researchers' own historical, socio-political, and cultural backgrounds. For example, it has been argued that many personality and social psychological theories in place might be limited by the Western cultural backgrounds of their creators (Sampson, 1985; Gergen, 1998). As such, there are opportunities for new theories that take a more multicultural perspective into consideration (see discussion in Hong, Wan, No, & Chiu, 2007). Thus, when developing one's own research framework, it is useful to keep in mind that existing theories and their associated empirical works are historically and culturally embedded (Campbell & Russo, 1999), and that one should be open to other perspectives.

Finally, the building of theories is a process. Higgins (2006) has used parenting as a metaphor for building and developing theories: "a theory, like a child, must be allowed to develop through contact with the world... To begin with, good parents do not assume what their child's actual behaviors are like. They observe how their child's actual behaviors in the world unfold in order to learn what their child is like. Similarly, scientists should not be [overly] concerned with confirming

their theory's predictions. They should observe the data produced by theory-driven research to learn more deeply about the theoretical mechanisms and processes" (p. 130).

In short, the building of theories requires patience, creativity, and persistence. And all of these requirements are worthwhile, as a theory creates a new way to look at the world (Kitcher, 1982), leads us to ask new questions, and compels us to embark on new and fruitful lines of inquiry.

An Overview of the Four-Step Approach to Test Theories

There are many roads to Rome. Depending upon the subject matter, different researchers have different ways to generate their research questions, build new theories or select from existing theories to tackle their research questions, and derive specific hypotheses and methods. For us, social psychological theories are best grounded in social phenomena. That is, we see that social theories function to help us understand, explain, and predict social phenomena. To begin, we attend to social events, incidents, and phenomena that unfold around us. Often times, we are able to find some common mechanisms that underlie apparently different phenomena. We then derive postulates from these common mechanisms and compare our postulates against the tenants of existing theories. Drawing from our postulates and the existing theories, we generate specific hypotheses and test those hypotheses empirically. In short, our intellectual journey can be summarized in four steps: (1) selecting phenomena, (2) finding critical commonalities, (3) abstracting (theorizing), and (4) hypothesis testing. We elaborate on each step next.

1. *Selecting phenomena* – Social theories do not exist in a social vacuum. Kurt Lewin, whose quote we alluded to at the outset, is one of the founding fathers of modern social psychology and has emphasized that social theories have to be grounded in social phenomena. In our own research, we usually gain insights from real-life events and incidents. To increase the generalizability of the

theories that we are testing, we examine multiple phenomena that occur in different countries and across different times, and we link these phenomena together via some common underlying psychological mechanisms. For example, one of our projects related the Hong Kong 1997 handover (the return of Hong Kong, a former British colony, to the People's Republic of China) to the transition of the Afrikaner White government to a democratically elected government in South Africa, and to the unification of East and West Germany (Hong et al., 2006). In this research, we examined whether people's social identities gave rise to subsequent changes in their intergroup attitudes during political transitions, or whether their prior intergroup attitudes gave rise to changes in their social identities.

2. *Finding critical commonalities* – This step is integrally linked to Step 1 and is essential to both generating new theories and testing existing theories. The goal is to analyze the particular psychological mechanisms underlying the phenomena and to identify their commonalities and/or their differences. Take our example above. Although each of the three political transitions (the Hong Kong 1997 handover, the democratic election in South Africa, and the unification of East and West Germany) had a unique historical background, all of them involved an integration or a merger of two social groups; thus, we can see the commonalities between these apparently different situations. Research on these transitions can potentially provide answers to questions such as: Does political transition evoke a sense of belongingness to the over-arching or merged group and thus heighten people's identification with the common ingroup (Chinese, South Africans, Germans)? Alternatively, does political transition evoke a threat to group distinctiveness and thus heighten people's identification with the subordinate group (Hongkongers, African Blacks, East Germans)? Would identification with the common ingroup versus the subordinate ingroup be related to people's perceptions of the other group

involved in the merger (Chinese Mainlanders, African Whites, West Germans)?

3. *Abstracting (Theorizing)* – This step is a process through which the critical commonalities identified are converted into general processes that are defined by abstract concepts, parameters, or variables. The focus here is on general processes transcending a variety of local effects of particular incidents, events, and phenomena. The goal is to shift the focus of explanation from the particular to the general so that the proposed processes can be compared and tested against new or extant theories. From the example above, we abstracted two constructs: (a) levels of social identity/self-categorization (an over-arching versus a subordinate identity), and (b) intergroup attitudes toward the outgroup in the merger. These variables can be linked to existing theories that address the causal relationships between social categorization and intergroup relations. For example, the minimal group paradigm (Tajfel, 1969) has demonstrated that even when group categorization is based upon arbitrary criteria, individuals favor ingroup members and tend to discriminate against outgroups. Since then, social identity has assumed a central role in major theories, including self-categorization theory (Turner, Oakes, Haslam, & McGarty, 1994) and the Common Ingroup Identity Model (Gaertner, Dovidio, Anastasio, Bachman, & Rust, 1993). All of these theories predict that people's prior identities are the antecedents for their subsequent attitudes towards the other group in the merger. Making an opposing prediction, realistic group conflict theory (Campbell, 1965; Pettigrew, 1978) and relative deprivation theory (see Thornton & Moore, 1993; Crosby, 1976; Walker & Smith, 2002), however, focus on the role of social categorization when groups engage in competition or conflict. According to these theories, people form attitudes toward another group as they engage in competitive or cooperative activities, and these attitudes may in turn forge their own self-categorization in relation to the group (whether

they categorize themselves into the common ingroup or a different subordinate group). In short, the group conflict theory and relative deprivation theory predict that people's prior intergroup attitudes are the antecedents of their subsequent social identity. These examples illustrate how we abstract constructs and link them to existing theories.

One point of contention is how much abstraction is optimal. Karl Popper (1963), for instance, characterized "as preferable the theory which tells us more, which contains the greater amount of empirical information or content" (p. 217). That is, we should be aiming for greater abstraction as opposed to less in order to generate theories about the general processes that can explain a range of phenomena equally well. However, sometimes too much abstraction may not be useful for predicting outcomes in specific domains. For example, using the intergroup integration examples above, we discussed the different phenomena at a level that was more general (the dynamic relationship between social identity and intergroup attitudes in merger situations) as opposed to just locating ourselves within a specific political transition (the Hong Kong 1997 handover). However, these processes are specific to intergroup integration situations and are therefore less general than "any" intergroup situation. The issue is whether researchers can add other parameters into the theory or model in order to make precise predictions of how people would react across different intergroup situations. A theory involving too much abstraction may not necessarily be informative enough to help generate specific predictions; however, abstraction is necessary for building a more powerful theory. Thus, researchers need to find an optimal balance in formulating a theory so that it will be abstract enough to explain a wide range of phenomena, but also specific enough to allow the generation of precise predictions.

4. *Hypothesis testing* – Based upon related theories, we can derive hypotheses and test them

against future observations. This process can be conceptualized as a reversal of abstracting, as it goes from the general (the abstraction) to the specific (the exact changes in the variables in the testing context). Also, the derived hypotheses would constrain the choice of method because some methods are better able to test the hypotheses than are other methods. Again, with regards the Hong Kong 1997 handover example, the social identity theories predict that social identity is the antecedent of intergroup attitudes, whereas realistic group conflict theory predicts that prior intergroup attitudes forge subsequent social identification. Based upon these general processes, two sets of hypotheses can be derived: Social identity theories would predict that Hong Kong people holding a common ingroup identity (Chinese identity) would show more positive attitudes toward the other group in the merger (Chinese Mainlanders) over time, whereas Hong Kong people holding a subordinate group identity (Hongkonger identity) would show less positive attitudes toward the Chinese Mainlanders at a later point in the transition. By contrast, realistic group conflict theory would predict that the Hong Kong people who hold more (less) positive attitudes toward the Chinese Mainlanders would be more likely to increase their endorsement of the Chinese (Hongkonger) identity at a later point during the political transition. Because these hypotheses involve temporal causation, they would be best tested using a longitudinal design whereby the participants' social identification (Hongkonger vs. Chinese) and their attitudes towards Chinese Mainlanders were assessed at several points in time during the political transition. The hypotheses also dictate what statistical modeling should be used to evaluate the cross-lagged effects of the identity and attitudes (see Hong et al., 2006 for details of the statistical methods used).

In sum, these four steps allow us to test social theories against the real world. This process is a continuous one and each time it is executed, the goal is to test a theory that can explain yet more

phenomena. As noted, scientific theories are always tentative and subject to correction or replacement. The bottom line is that this process should be conducive to new ways of looking at the world, asking new questions, and eventually making new discoveries. In the rest of this paper, we flesh out the four steps further by providing three examples from our own research projects on *hierarchical identity*, *identity hegemony*, and *bridging identity/symbol*.

Example 1: Hierarchical Identity

According to self-categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), each person belongs to multiple social groups (e.g., gender, racial/ethnic, national, professional, and so forth) and can potentially claim multiple social identities. However, depending upon the demands and features of different social contexts, only a few of one's various social identities may come to the fore and become salient. For example, a woman who works in a predominantly male profession may be more aware of her gender at work than in other situations. As such, social identification is dynamic, and people may come to identify more strongly with a particular social identity given a certain situation. Moreover, some social identities can be arranged in a hierarchical fashion. For example, for people in Hong Kong, their Hongkonger identity is a subordinate identity within the over-arching Chinese identity. Thus, they may identify themselves as a Hongkonger in one situation (e.g., when they are in Shanghai), but as a Chinese in another situation (e.g., when they are in the United States)¹. One interesting issue is whether these fluid social identifications can affect a person's attitudes towards other groups who share the same overarching identity.

1. *Selecting phenomena* – Before the Hong Kong 1997 political transition, the people of Hong

¹ We also found some Hong Kong people who identified themselves as Hongkongers only and refused to identify themselves as Chinese.

Kong viewed themselves as a part of the prosperous economic network within developed Asia. In contrast, most perceived Mainland China to be a relatively less developed region. As a result, many Hong Kong people were accustomed to maligning Chinese Mainlanders by engaging in negative stereotyping and discrimination (Chau, Chiu, & Foo, 1998). Meanwhile, in the United States, prejudice and discrimination are also quite frequent amongst the country's many different racial groups (e.g., between Asian American and African American). These observations prompted us to examine how individuals' social identification may affect their tendency to stereotype and exhibit prejudice against members from other groups who share the same overarching identity (Hong et al., 2004).

2. *Finding critical commonalities* – Although the incidents of prejudice and discrimination described above occurred in two different countries and involved different groups of people, they were both cases in which those who exhibit prejudice and the targets of that prejudice were both members of one overarching identity (see Figure 1). Importantly, those exhibiting the prejudice may identify themselves with the subordinate, exclusive identity (Hongkonger, Asian American) or the overarching, inclusive identity (Chinese, American). When they identify with the exclusive identity, the targets of their prejudice (Chinese Mainlanders, African

Americans) become outgroup members. In contrast, when they identify with the inclusive identity, the targets of their prejudice become ingroup members.

3. *Abstracting (Theorizing)* – The Common Ingroup Identity Model (CIIM, Gaertner et al., 1993; see also Dovidio, Gaertner, & Loux, 2000) proposes that emphasizing an overarching, shared membership (i.e., a common ingroup identity) will reduce prejudice based upon subcategory groups because outgroup members will be seen as part of a more inclusive “we”, instead of an exclusive “us” versus “them”. There is evidence from previous research that endorsing a common ingroup identity does reduce prejudice in intergroup settings (e.g., Dovidio, Gaertner, Validzic, Matoka, Johnson, & Frazier, 1997; Gaertner & Dovidio, 2000; Galinsky & Moskowitz, 2000).

It is logical then to test the CIIM in our research by looking at whether Hong Kong participants and Asian American participants holding an overarching identity (Chinese, American), compared to those holding a subordinate identity (Hongkonger, Asian American), will show less prejudice toward other social groups (Chinese Mainlanders, African Americans) who are included under the same overarching identity. However, if we were to just test the CIIM alone, our research would have little *incremental value* in terms of theory development, as the CIIM has already been supported by previous research. That is, our research would not have helped to broaden theoretical understanding if we had only validated an existing, well-known theory. This is a crucial consideration, and many top tier journals have rightfully used incremental value as an important criterion for accepting research for publication.

The critical question is then, “What is our research showing that is new?” To this end, we decided to combine the CIIM with implicit theories. Implicit theories are naïve or lay systems of beliefs that people use in everyday life to interpret and

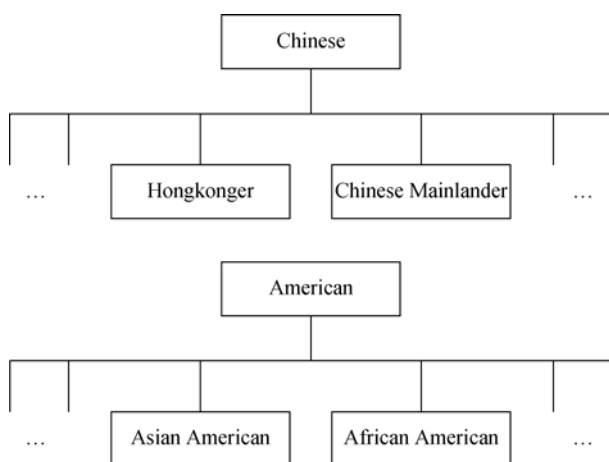


Figure 1. Hierarchical identities for Hongkongers and Asian Americans.

evaluate their social world. Implicit theories can be conceived of as the basic lens through which people make sense of their world. Importantly, the implicit theory approach makes the distinction between entity and incremental theories of human character (Chiu, Hong, & Dweck, 1997; Dweck, 1999). Entity theory of human character is the belief that human character is fixed and cannot be changed, whereas incremental theory of human character is the belief that human character is malleable and can be changed.

If human character is believed to be fixed and unchangeable, then individual differences should be perceived to readily reflect the stable, enduring, and underlying trait differences within individuals (Chiu et al., 1997). Therefore, in the mind of the entity theorist, individual differences are not subject to the influences of the situation or any psychological processes, such as having goals and motivations (Chiu, 1994; Hong, 1994). In this entity theory framework, we suggested that people exhibit prejudice against members from maligned groups regardless of their own social identification. Putting this theory in context, we posited that regardless of their preferred social identity, Hong Kong participants and Asian American participants who hold an entity theory of human character should display prejudice against Chinese Mainlanders and African Americans, respectively. In effect, if human character is perceived to be fixed, then whether or not one shares a common ingroup identity with a maligned other is of no consequence – shared ingroup or not, one's stereotypes and prejudice will not be modified. In short, the assumptions of the CIIM would not hold for people who believe in an entity theory of human character.

In contrast, for incremental theorists who believe human character is malleable and changeable, individual differences are perceived to reflect a dynamic, complex system that is influenced by both situations and psychological processes (Hong, Chiu, Yeung, & Tong, 1999). Therefore, those who hold an incremental theory

should modify their perceptions of the maligned groups according to how those members are related to themselves in a particular context. As a result, the incremental theorist should display more prejudice when holding a subordinate identity and less prejudice when holding an overarching, common ingroup identity.

By combining the CIIM with the implicit theories approach, our research project brought new understanding to how social identity may be related to intergroup perceptions, thereby providing an added contribution to the field.

4. *Hypothesis testing* – Based upon our arguments above, we predicted an identity endorsement (overarching vs. subordinate) by implicit theories (entity vs. incremental) interaction effect on one's level of prejudice, such that among the Hong Kong participants and Asian American participants who believe that human character is malleable (incremental theorists), those holding an overarching identity (Chinese, American, respectively) would display less prejudice toward Chinese Mainlanders or African Americans, compared to those who hold a subordinate identity (Hongkonger, Asian American). However, participants who believe that human character is fixed (entity theorists), regardless of their identity (Chinese or Hongkonger, American or Asian American), should show equally high levels of prejudice towards Chinese Mainlanders or African Americans. In particular, the incremental-overarching combination should lead to the lowest level of prejudice among the four combinations. To test these hypotheses, we conducted two studies, one in Hong Kong (Study 1) and one in the United States (Study 2) (Hong et al., 2004).

In designing our methodology, we needed to decide whether to test just associations between the variables or to make causal inferences (i.e., that identity and theory “cause” the prejudice levels to vary). The former would call for a correlational design and the latter would call for an experimental design. Since previous research has

shown that there are multiple reasons (personal histories, political attitudes, contextual reasons, and so forth) for people to claim one identity over another, testing only associations between identity and prejudice level would not allow us to rule out other factors that might give rise to both identity and prejudice level (also known as the third factor problem). Therefore, relying only on a correlational design would not be optimal in this case. As a result, we decided to use an experimental design, whereby we experimentally increased the temporal salience of participants' overarching identity or subordinate identity in Study 2; we also manipulated the accessibility of entity theory versus incremental theory. Because we randomly assigned participants to the manipulation conditions, we were able to infer causal relationships between the manipulation variables (identity and theory) and the dependent measure (prejudice toward Chinese Mainlanders or African Americans). The results consistently supported our hypotheses. Interested readers can refer to our paper (Hong et al., 2004) for the manipulation procedures and the measures we used to assess prejudice. Here, our point is to show that there are multiple decision points in conducting a program of research. Different researchers may make different decisions depending upon their rationale and goals. In any case, the researchers need to be mindful of their rationale and decisions, and at the same time understand that the ultimate goal is to bring about new knowledge substantiated by evidence from vigorous testing.

Example 2: Identity Hegemony

In the previous example, we applied the Common Ingroup Identity Model (CIIM) to understand how manipulating the salience of different levels of individuals' social identities together with implicit theories of human character can lead to stronger or weaker prejudice levels towards the same target group. In this second example, we would like to demonstrate a boundary condition of the CIIM, i.e., a critical condition

under which the CIIM will not work. We propose that identity hegemony may set up a boundary condition, and we explain identity hegemony below.

1. *Selecting phenomena* -- Natural disasters (such as 2008's Sichuan earthquake in China and 2005's Hurricane Katrina in the United States) can influence individuals' ingroup identification dramatically. The Sichuan earthquake united Chinese together; donations and other rescue efforts poured in from both other regions within China, as well as from Chinese residing in other parts of the world. Consistent with the CIIM, the natural disaster increased the salience of the common Chinese identity and united Chinese from different backgrounds stationed all over the world. Such a reaction to the Sichuan earthquake stands in stark contrast to the polarized American public reaction towards Hurricane Katrina, one of the deadliest hurricanes in United States history. Instead of uniting the American public with a common American ingroup identity, this natural disaster deepened the racial divide between Black and White Americans in the United States. Whereas Black Americans perceived the slow response of the Bush Administration as a manifestation of racism and a lack of concern for Black people, White Americans were less likely to blame racism and the Administration. Alternatively, White Americans were more likely to direct blame onto the victims – the predominantly Black residents of New Orleans – for bringing about their own misfortune by failing to evacuate in time or at all (USA TODAY/CNN GALLUP, 2005). These polarized American reactions contradicted the CIIM, which would predict that the salience of an American identity should unite Americans from different racial and ethnic backgrounds together. This phenomenon suggested that there is a boundary condition within the CIIM.

2. *Finding critical commonality*. What is the boundary condition or the critical factor that forced the CIIM to seemingly fail in the case of Hurricane Katrina? We proposed that identity hegemony

played a central role in predicting the racial divide in public responses toward the aftermath of Hurricane Katrina (Dach-Gruschow & Hong, 2006).

The term identity hegemony refers to the domination of a social group's identity in a society marked by ethno-cultural diversity. For instance, the United States' population is characterized by racial diversity, with individuals from different ethnic and cultural backgrounds. However, a racial and ethnic divide is strongly entrenched in American society (Gaertner & Dovidio, 2000). More importantly, the "American" culture is often equated with the White Protestant Ethic (Huntington, 2004), and the term "American" has been strongly associated with being White (Devos & Banaji, 2005). Therefore, Whites in the United States tend to think of themselves as not having an ethnicity, but rather classify themselves as just "American" (McIntosh, 1988). Thus, the "American" identity does not signify a common ingroup identity that includes Americans of different races and ethnicities, but is instead regarded as an exclusive identity for White Americans. When the "American" identity equates to the White American identity exclusively, other non-White Americans (e.g., African Americans) are classified as outgroups. As a result, making salient the "American" identity might lead White Americans to increase their prejudice towards racial and ethnic minority groups within the United States. Such White American identity hegemony was apparent in the media coverage of the Hurricane Katrina disaster. In reporting on Hurricane Katrina, instead of referring to the victims as Americans displaced by the natural disaster, the media depicted the victims, predominantly Black Americans, as "refugees," implying that they were not Americans and were foreign to the United States. As such, identity hegemony could be a potential factor in creating the boundary condition for the application of the CIIM.

3. *Abstracting (Theorizing)* -- The idea of identity hegemony suggests that in a society

characterized by racial and ethnic diversity, if members of a racial majority group equate their racial identity with the national identity (e.g., American = White; Devos & Banaji, 2005), the salience of their national identity will compel them to categorize other racial and ethnic minority groups as outgroups. On the contrary, the salience of a subordinate, racial or ethnic identity (e.g., White American or European American) might remind the racial majority group members of the racial and ethnic diversity within their country, and thereby lead them to perceive members of racial minority groups as Americans, too. As such, White American participants should discriminate against African Americans less when they are reminded of their White American identity (a subordinate identity), compared to when they are reminded of their American identity (a supposedly overarching identity). This prediction is directly opposed to what the CIIM would have predicted, and therefore has a high incremental value to new knowledge.

4. *Hypothesis testing* -- To test our hypothesis, we conducted an experiment in the United States approximately two weeks after Hurricane Katrina hit New Orleans (Dach-Gruschow & Hong, 2006). At that time, prejudice against the African American victims in New Orleans was still widespread. Therefore, it was timely to understand whether social identification would indeed affect participants' levels of prejudice. In the study, we used experimental methods to induce participants' social identity. Specifically, we recruited White participants and experimentally activated their overarching, national identity versus their subordinate, ethnic identity by asking them to write an essay that focused on "How to improve American society". The participants were randomly assigned into one of the identity conditions. To make their overarching, national identity salient, in the "American" condition, the participants were asked to write their thoughts about how "Americans", like them, could contribute to resolve issues encountered by the

United States. To make their subordinate identity salient, in the “White American” / “European American” condition, the participants were asked to write their thoughts as to how their ethnic group – “White American” / “European American” – could uniquely contribute to building a better America.

Immediately after writing the essay, the participants were asked about their attitudes towards the aftermath of Hurricane Katrina; specifically, we measured how much the participants blamed the African American victims versus institutional racism. We found that, as predicted, the White participants were more likely to blame the victims when their “American” identity was made salient than when their “White American” / “European American” identity was activated. Furthermore, White participants in the “American” condition, compared to those in the subordinate identity conditions, also showed a greater tendency to deny racism and felt that the victims themselves contributed to their own suffering. In sum, the present research showed that the CIIM might not hold when the majority group dominates the national identity.

This research can inspire a number of studies in China and in the United States. For example, in the United States, would having Barack Obama, the newly elected African American president, help to alleviate the problems of racism in the United States? Would using Obama as a prime reduce White participants’ association of American=White, and thus reduce their prejudice against African Americans? Alternatively, would having a Black president backfire? That is, would it make people feel that racism has subsided and that it is now no longer justifiable to blame institutional racism for the misfortune that many African Americans endure? Will people feel that the historical inequalities between Black and White Americans have been redressed, and that favorable treatment toward Blacks (e.g., affirmative action) is now unwarranted? These are all interesting questions that await further exploration.

Example 3: Bridging Identity/Symbol

We have focused on how social identity affects prejudice and discrimination in the first two examples. But does (and if so, how does) social identity influence the self? We have recently started to examine other functions of social identity. For example, does identifying with a certain social identity help individuals to organize and make sense of their other social identities? For instance, would identifying with a labor union help a worker who moved from a small town to acquire a new identity as a city dweller? That is, would membership in a labor union help to *bridge* the rural and urban identities for the individual? This process will be termed *bridging identity*.

1. *Selecting phenomena* – Rosner and Gardner (2006) were among the first to examine the bridging function of social identities. Specifically, they examined recent Russian Jewish immigrants to the Chicago area in the United States. They found that these recent Russian Jewish immigrants who deemed their Jewish identity as central to their self-concept saw less distance between their American and Russian identities. It is possible that the Jewish identity allows these recent Russian immigrants to connect to the American identity, as the Jewish and American identities are seemingly more closely aligned than the Russian and American identities. For instance, there is already a great number of American Jews of Eastern European descent in the United States who have established themselves firmly into the American culture and society. As such, these recent Jewish immigrants are using a common social identity as a stepping-stone, or a bridge, to adoption of the American social identity.

Similarly, for Beijing Chinese, the 2008 Beijing Olympic Games symbolized the bonding between Chinese people and people from different parts of the world. In the following, we assert the idea of bridging identity further to understand how the Beijing Olympic Games served as a bridge

between Chinese culture and the global, predominantly Western culture.

2. *Finding critical commonality* -- How could the Beijing Olympic Games be related to the process experienced by recent Russian Jewish immigrants to the United States? We reasoned that from the Chinese perspective, the Beijing Olympic Games were an event of immense historical meaning; they were an occasion in which the Chinese people showcased to the world the accomplishments of China since the Economic Reform. The rapid advancement and modernization of China has allowed the country to emerge as a major power in the world, but until the Games, there had not been an opportunity for China to formally show off these achievements. Indeed, while the Games provided such an opportunity, they also aptly conveyed the Chinese goal of demonstrating a more united – and equal-footed – world with the slogan “One World, One Dream.” In fact, we (Rosner, Li, Chao, & Hong, in press) have found in a survey that Chinese people do see the Beijing Olympic icon as a symbol of China becoming more globalized, and of the world becoming one. Given this finding, we posited that the Beijing Olympic icon serves as a bridge to connect Chinese and Western cultures in the mind of Chinese people. That is, the Beijing Olympic icon seemingly activates Chinese participants’ view that Chinese and Western cultures are now more similar (rather than distinct) to one another.

3. *Abstracting (Theorizing)* -- To theorize this process, we utilized the dynamic constructivist theory of culture (Hong, 2009; Hong, Morris, Chiu, & Benet-Martinez, 2000). According to the dynamic constructivist theory of culture, people form representations of different cultures based upon their previous exposure to the cultures. As a result, bicultural individuals may switch between their various modes of interpretation – in one situation everything is filtered through one cultural lens, while in the next, filtering occurs through a different cultural lens. We (Hong, Chiu, & Kung,

1997; Hong et al., 2000; Hong, Benet-Martinez, Chiu, & Morris, 2003) proposed that this differential filtering occurs through spontaneous activation of cultural frames, or interconnected knowledge structures, in response to cues eliciting the cultural requirements of a situation. A number of studies have been conducted to test this idea whereby Chinese-American biculturals (Hong Kong Chinese, Chinese Americans) were primed with either Chinese cultural icons (e.g., the Chinese dragon) or American cultural icons (e.g., Mickey Mouse). When primed with American cultural icons, these biculturals were more inclined to respond in a typically “American” way (and less “Chinese” way) than when they were primed with Chinese cultural icons. These tendencies have been shown on a wide range of dependent measures, including attributes (Hong et al., 1997), spontaneous self-construal (Ross, Xun, & Wilson, 2002), and cooperative behaviors (Wong & Hong, 2005). In addition, this culture priming effect has also been replicated in studies that used different bicultural samples (Chinese-Canadians, Dutch-Greek bicultural children), and a variety of cultural primes (e.g., language, experimenter’s cultural identity; Ross et al., 2002; Verkuyten & Pouliasi, 2002).

In the studies reviewed above, bicultural participants were exposed to symbols of Chinese or American culture. Chiu and his colleagues (Chiu, Mallorie, Keh, & Law, 2009) have extended this paradigm to examine what happens when Chinese and American icons are shown to participants at the same time, side-by-side. They found that when representations of two cultures are activated simultaneously, the perceivers will use “culture” as a schema to organize their attention, perception, and other cognitive processes. As a result, participants focus on the distinctive features between the two cultures and therefore exaggerate the stereotypic characteristics of the two cultures. This contrast effect is also well documented in consumer research whereby when two products (e.g., Pepsi and Coke) are evaluated separately

(separate evaluation), the perceivers form their assessments by comparing the focal product to a specific and concrete example (e.g., an average soft drink). In this case, the perceivers will not necessarily attend to the products' distinctive characteristics. By comparison, when two products are juxtaposed and evaluated side-by-side (joint evaluation), the perceivers will use one product as a gauge or a reference and will make their assessments by comparing one product against the other. In this case, the perceiver's attention is drawn to the distinctive characteristics of the two products (Hsee 1996; Hsee, Loewenstein, Blount, & Bazerman, 1999; Hsee & Zhang, 2004).

We extended these findings and argued that the Beijing Olympic icon can help to create similarity perceptions, as opposed to distinction perceptions, between the Chinese and Western cultures. That is, if the Beijing Olympic Games indeed serve as a bridge between the Chinese and Western cultures, the presentation of the Beijing Olympic icon together with the joint presentation of Chinese and Western cultural icons should draw the perceiver's attention to the similarities, rather than the distinctions, between the two cultures.

4. *Hypothesis testing* – To test these ideas, we (Hong, Li, Rosner, & Chao, 2008) conducted a study in June of 2008, about two months before the Beijing Olympic Games, in Beijing. We randomly assigned Beijing college students into one of the four priming conditions: (1) Joint presentation of Chinese and Western cultures, together with the Beijing Olympic icon, (2) Joint presentation of just the Chinese and Western cultures, (3) Single presentation of the Western culture (as a control condition), and (4) Presentation of abstract graphic designs unrelated to culture (as another control condition). Samples of the primes are shown in Figure 2. Subsequently, participants were asked to judge patterns of reward allocation between two workers in both an American and a Chinese company. Indeed, as we predicted, participants in the first condition judged the pattern of reward allocation between the American and Chinese

workers as significantly more similar, compared to all of the other conditions, suggesting that the Beijing Olympic icon may help to bridge the Chinese and Western cultures in the mind of the Chinese participants. We are currently conducting more studies to replicate these preliminary findings.

Conclusion

We have proposed a four-step approach to build and test theories in social and personality psychology based upon the lessons we have learned from conducting research on social identification and intergroup relations. Although

Condition 1: Joint presentation of Chinese and Western cultures, with the Beijing Olympic icon.



Condition 2: Joint presentation of Chinese and Western cultures.



Condition 3: Single presentation of Western culture.



Condition 4: Presentation of abstract graphic design unrelated to culture.

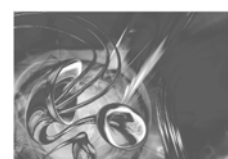


Figure 2. Sample primes used in Hong et al. (2008) of example 3.

we have focused mostly on identifying the critical commonalities across countries and cultures, we also pay attention to the importance of the local particulars (i.e., cultural and historical background) foundational to each of the events. Our goal is to discover some universal processes and, at the same time, pay close attention to cultural particulars. For instance, we have shown that identity hegemony of White Americans in the United States (in Example 2) can pose a boundary condition for the Common Ingroup Identity Model. Our approach takes a pragmatic middle ground between the extreme universalism perspective, which suggests that culture does not matter, on the one hand, and the extreme cultural relativism position, which suggests that different cultures are incommensurable, on the other hand. We believe that different cultures should be given a voice in contributing to the understanding of human behaviors, but at the same time, there should be a universal “common language” that allows researchers from different cultures to engage in a dialogue. Endorsing either the extreme universalism or cultural relativism approach would prevent us from achieving these goals.

In addition, we have mostly focused on how theory drives the selection of research methods, and we have emphasized from the outset that theory is more fundamental to one’s research program than are methods. However, we do not deny that it is possible to inform theories from methods. On the contrary, we believe that new methods can stimulate new questions and potentially lead to new theoretical developments. For example, researchers have recently started to apply neuroscience methods, including functional magnetic resonance imaging (fMRI), event-related brain potentials (ERP), and transcranial magnetic stimulation (TMS) to understand the self and social processes. For example, in one study (Chiao et al., in press), it was found that people showed greater activation in the left and right amygdala when they viewed pictures of fearful faces of ingroup members than when they saw outgroup

members, suggesting that people are wired for detecting warning signals from ingroup members. Furthermore, many exciting new research has been done to address neural correlates of cultural influences (see review by Han and Northoff, 2008). For example, research (Goh et al., 2007) has shown that Singaporean Chinese and White American participants have different patterns of neurological activation when viewing photos of certain focal objects against different contexts. More importantly, such cross-cultural differences are affected by top-down processing, suggesting that cultural experiences may set up strategic control over neurological activities. However, this cross-cultural difference was only found among elderly groups and not college students. Recently, we modified the task and found significant cross-cultural differences in the neural activation between Chinese and White college students, as well (Jenkins, Yang, Goh, Hong, & Park, in press). In sum, neuroimaging methods allow researchers to ask new questions, such as how and when cultural experiences modulate neural activity (the modulation question) and how and when they determine which brain regions are recruited during a specific task (the constitutional question). Importantly, “even though the same brain region might be recruited by different cultural groups during the same cognitive task, two cultures might have different meanings for the concepts involved in a task” (Hans & Northoff, 2008, p.652). To discern whether the cultural groups indeed infer different meanings for the concepts, we will need to rely on theory. This assertion attests to the intimate, reciprocal relationship between theory and method.

To conclude, there are many exciting new developments in both theory and methodology within social and personality psychology. With the increasing need and desire to understand social phenomena even better, psychologists in China will enjoy many new opportunities in conducting research. We hope our paper can help researchers find ways to add new knowledge and

contribute to a globalized knowledge base of social and personality psychology.

References

- Campbell, D. T. (1965). Ethnocentric and other altruistic motives. In D. Levine (Ed.), *Nebraska Symposium on Motivation* (Vol. 13, pp. 238–311) Lincoln: University of Nebraska Press.
- Campbell, D. T., & Russo, M. J. (1999). *Social experimentation*. Thousand Oaks, CA: Sage.
- Chau, A., Chiu, C., & Foo, L. (1998). Hong Kongers' perception of new migrants from Mainland China. In R. Ramos, J. R. Dinis, R. Wilson, & D. Y. Yuan (Eds.), *Macau and its neighbors toward the 21st century* (pp. 3–12). Macau, China: Publication Center of University of Macau.
- Chiao, J. Y., Iidaka, T., Gordon, H. L., Bar, M., Aminoff, E., Sadato, N., Ambady, N. (in press). Cultural specificity in amygdala response to fear faces. *Journal of Cognitive Neuroscience*.
- Chiu, C. (1994). *Bases of categorization and person cognition*. Unpublished doctoral dissertation, Columbia University, New York.
- Chiu, C., Hong, Y., & Dweck, C. S. (1997). Lay dispositionism and implicit theories of personality. *Journal of Personality & Social Psychology*, 73, 19–30.
- Chiu, C., Mallorie, L., Keh, H. T., & Law, W. (2009). Perceptions of culture in multicultural space: Joint presentation of images from two cultures increases ingroup attribution of culture typical characteristics. *Journal of Cross-Cultural Psychology*, 40, 282–300.
- Crosby, F. (1976). A model of egoistical relative deprivation. *Psychological Review*, 83, 85–113.
- Dach-Gruschow, K., & Hong, Y. (2006). The Racial Divide in Response to the Aftermath of Katrina: A Boundary Condition for Common Ingroup Identity Model. *Analyses of Social Issues and Public Policy*, 6, 125–141.
- Devos, T., & Banaji, M. (2005). American = white? *Journal of Personality and Social Psychology*, 88, 447–466.
- Dovidio, J. F., Gaertner, S. L., Validzic, A., Matoka, A., Johnson, B., & Frazier, S. (1997). Extending the benefits of recategorization: Evaluations, self-disclosure, and helping. *Journal of Experimental Social Psychology*, 33, 401–420.
- Dovidio, J., Gaertner, S. L., & Loux, S. (2000). Subjective experiences and intergroup relations: The role of positive affect. In H. Bless & J. P. Forgas (Eds.), *The message within: The role of subjective experience in social cognition and behavior* (pp. 340–371). Philadelphia: Psychology Press.
- Dweck, C. S. (1999). *Self-Theories: Their role in motivation, personality, and development*. Philadelphia, PA: The Psychology Press.
- Gaertner, S. L. & Dovidio, J. F. (2000). *Reducing intergroup bias: The common ingroup identity model*. Philadelphia: Psychology Press.
- Gaertner, S. L., Dovidio, J. F., Anastasio, P. A., Bachman, B. A., & Rust, M. C. (1993). The common ingroup identity model: Recategorization and the reduction of intergroup bias. *European Review of Social Psychology*, 4, 1–26.
- Galinsky, A. D., & Moskowitz, G. B. (2000). Perspective-taking: Decreasing stereotype expression, stereotype accessibility, and in-group favoritism. *Journal of Personality and Social Psychology*, 78, 708–724.
- Gergen, K. J. (1998). From control to co-construction: New narratives for the social sciences. *Psychological Inquiry*, 9, 101–103.
- Goh, J. O., Chee, M. W., Tan, J. C., Venkatraman, V., Hebrank, A., Leshikar, E. D., Jenkins, L., Sutton, B. P., Gutchess, A. H., & Park, D. C. (2007). Age and culture modulate object processing and object-scene binding in the ventral visual area. *Cognitive, Affective, and Behavioral Neuroscience*, 7, 44–52.
- Han, S., Northoff, G. (2008). Culture-sensitive neural substrates of human cognition: A transcultural neuroimaging approach. *Nature Review Neuroscience*, 9, 646–654.
- Higgins, E. T. (2004). Making a theory useful: Lessons handed down. *Personality and Social Psychology Review*, 8, 138–145.
- Higgins, E. T. (2006). Theory development as a family affair. *Journal of Experimental Social Psychology*, 42, 129–132.
- Hong, Y. (2009). A dynamic constructivist approach to culture: Moving from describing culture to explaining culture. In Wyer, R. S. Jr., Chiu, C., & Hong, Y. (Eds.) *Understanding culture: theory, research and application* (pp. 3–23). New York: Psychology Press.
- Hong, Y. (1994). *Predicting trait versus process inferences: The role of implicit theories*. Unpublished doctoral dissertation, Columbia University, New York.
- Hong, Y., Benet-Martinez, V., C-y. Chiu, & Morris, M. W. (2003). Boundaries of cultural influence: Construct activation as a mechanism for cultural differences in social perception. *Journal of Cross-Cultural Psychology*, 34, 453–464.
- Hong, Y., Chiu, C., Yeung, G., & Tong, Y. (1999). Social comparison during the political transition: Interaction of entity versus incremental beliefs and social identities. *International Journal of Intercultural Relations*, 23, 257–279.
- Hong, Y., Chiu, C., & Kung, T. M. (1997). Bringing culture out in front: Effects of cultural meaning system activation on social cognition. In K. Leung, U. Kim, S. Yamaguchi, & Y. Kashima (Eds.), *Progress in Asian social psychology* (pp. 135–146). Singapore: Wiley.
- Hong, Y., Coleman, J., Chan, G., Wong, R. Y. M., Chiu, C., Hansen, I. G., Lee, S., Tong, Y., & Fu, H. (2004). Predicting intergroup bias: The interactive effects of implicit theory and social identity. *Personality and Social Psychology Bulletin*, 30, 1035–1047.
- Hong, Y., Li, Y., Rosner, J. L., & Chao, M. M. (2008). “One World, One Dream”: Did the Beijing Olympic Games decrease the psychological distance between East and West? Unpublished data.
- Hong, Y., Liao, H., Wong, R., Chan, G., Chiu, C., Ip, G., Fu, H., & Hansen, I. (2006). The temporal causal link between outgroup attitudes and social categorization: The case of Hong Kong 1997 transition. *Group Processes and Intergroup Relations*, 9, 265–288.
- Hong, Y., Morris, M. W., & Chiu, C-y. & Benet-Martinez, V. (2000). Multicultural minds: A dynamic constructivist approach to culture and cognition. *American Psychologist*, 55, 709–720.
- Hong, Y., Wan, C., No, S., & Chiu, C. (2007). Multicultural identities. In S. Kitayama & D. Cohen (Eds.), *Handbook of cultural psychology*. (pp. 323–345). New York, NY: Guilford.
- Hsee, C. K. (1996). The evaluability hypothesis: An explanation for preference reversals between joint and separate evaluations of alternatives. *Organizational Behavior and Human Decision Processes*, 67, 247–257.
- Hsee, C. K., & Zhang, J. (2004). Distinction bias: Misperception and mischoice due to joint evaluation. *Journal of Personality and Social Psychology*, 86, 680–695.
- Hsee, C. K., Loewenstein, G. F., Blount, S., & Bazerman, M. H. (1999). Preference reversals between joint and separate evaluations of options: A review and theoretical analysis. *Psychological Bulletin*, 125, 576–590.
- Huntington, S. P. (2004). *Who are we? The challenges to America's national identity*. New York: Simon & Schuster.
- Jenkins, L. J., Yang, Y. J., Goh, J., Hong, Y., & Park, D. C. (in press). Cultural differences in the lateral occipital complex while viewing incongruent scenes. *Social Cognitive and Affective Neuroscience*.

- Kitcher, P. (1982). *Abusing Science: The case against creationism*. Cambridge, Mass: MIT Press.
- McIntosh, P. (1988). *White privilege: Unpacking the invisible knapsack. Coming to see correspondences through work in Women's studies*. Wellesley, MA: Wellesley College Center for Research on Women.
- Pettigrew, T. F. (1978). Three issues in ethnicity: Boundaries, deprivations, and perceptions. In J. M. Yinger & S. J. Cutler (Eds.), *Major social issues: A multidisciplinary view* (pp. 25–49). New York: Free Press.
- Popper, K. R. (1959). *The logic of scientific discovery*. Oxford, England: Basic Books.
- Popper, K. R. (1963). *Conjectures and refutations*. London: Routledge and Keagan Paul.
- Reis, H. T., & Judd, C. M. (Eds.). (2000). *Handbook of research methods of social and personality psychology*. New York, NY: Cambridge University Press.
- Rosner, J. L. & Gardner, W. L. (2006). *Bridge or barrier?: Judaism's role in the acculturation process of Russian Jews in the United States*. Unpublished data: Northwestern University.
- Rosner, J. L., Li, Y., Chao, M. M., & Hong, Y. (in press). One world, just a dream? Effects of the Beijing Olympic icon on perceived differences between Eastern and Western culture. *Asian Journal of Social Psychology*.
- Ross, M., Xun, W. Q., & Wilson, A. E. (2002). The effect of language on the bicultural self. *Personality and Social Psychology Bulletin*, 28, 1040–1050.
- Sampson, E. E. (1985). The decentralization of identity: Toward a revised concept of personal and social order. *American Psychologist*, 40, 1203–1211.
- Tajfel, H. (1969). Cognitive aspects of prejudice. *Journal of Social Issues*, 25, 79–97.
- Thornton, B., & Moore, S. (1993). Physical attractiveness contrast effect: Implications for self-esteem and evaluations of the social self. *Personality and Social Psychology Bulletin*, 19, 474–480.
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Oxford, UK: Basil Blackwell.
- Turner, J. C., Oakes, P. J., Haslam, S. A., & McGarty, C. (1994). Self and collective: Cognition and social context. *Personality and Social Psychology Bulletin*, 20, 454–463.
- United States National Academy of Sciences (2005). *Science, Evolution, and Creationism*, retrieved from http://www.nap.edu/catalog.php?record_id=11876#toc.
- USA TODAY/CNN GALLUP. (2005). USA TODAY/CNN GALLUP POLL. Retrieved 10/27, 2005 from <http://www.usatoday.com/news/polls/2005-09-12-poll-blacks.htm>.
- Verkuyten, M., & Pouliasi, K. (2002). Biculturalism among older children: Cultural frame switching, attributions, self-identification and attitudes. *Journal of Cross-Cultural Psychology*, 33, 596–608.
- Walker, I., & Smith, H.J. (Eds.). (2002). *Relative deprivation: Specification, development, and integration*. Cambridge, UK: Cambridge University Press.
- Wong, R. Y., & Hong, Y. (2005). Dynamic influences of culture on cooperation in the prisoner's dilemma. *Psychological Science*, 16, 429–434.

理论的建构与验证：来自社会认同研究的经验

康莹仪^{1,2} 周文芝² 杨永瑞² 詹尼弗·罗斯纳²

(¹ 新加坡南洋理工大学) (² 美国伊利诺大学香槟分校)

摘 要 科学研究的核心在于理论的建构与验证。基于社会认同和群际关系研究的经验，本文提出了建构与验证心理学理论的四步方法：1) 选择现象——观察我们身边及周围世界所发生的事件；2) 寻找关键共性——厘定不同事件间的共同成份；3) 抽象化(理论化)——提取关键共性中潜存的基本心理过程，并将其与已有的或者最新的理论相联系；4) 验证假设——利用实验反复地验证理论。以上四个步骤引导着研究者针对现实生活中的社会事件展开科学研究。文章将以等级身份、身份霸权和桥梁身份等研究为例阐明上述方法，同时也提出在社会和人格心理学领域开展系统性研究的准则。

关键词 理论建构；理论验证；社会认同；群际关系

分类号 B841