

**PART IV**

**CULTURE, COGNITION**

**AND RESPONSE**

---

<sup>1</sup> Survey Methods in Multinational, Multiregional, and Multicultural Contexts, edited by Harkness et al.  
Copyright © 2010 John Wiley & Sons, Inc.

## **Cognition, Communication, and Culture: Implications for the Survey Response Process**

*Norbert Schwarz, Daphna Oyserman, and Emilia Peytcheva*

### **10.1 INTRODUCTION**

Since the early 1980s, psychologists and survey methodologists have made considerable progress in understanding the cognitive and communicative processes underlying survey responding (for reviews see Schwarz, 1999; Sirken et al., 1999; Sudman, Bradburn, & Schwarz, 1996; Tourangeau, Rips, & Rasinski, 2000). To date this research has paid limited attention to cultural differences. However, there is increasing evidence that there are cultural differences in how information is processed (for a review, see Oyserman & Lee, 2007, 2008a). In this chapter we provide a brief overview of the relevant research and explore its implications for survey response.

We focus on the contrast that has received the most attention in cultural psychology, namely the contrast between East Asian and Western (Western Europe and North American) societies. These societies have been described as differing in their chronic or dominant focus on collectivism (embeddedness of individuals within social frames, interdependence among in-group members) vs. individualism (separation of individuals from social frames, independence of the self from others). While there is some evidence that results from East Asian samples cannot always be generalized to other collective societies (see Chapter 11, this volume), to date most of the relevant research on culture's consequences has focused on this comparison. Even if generalization is somewhat limited, using East Asian collectivism and Western individualism as a focal comparison allows us to build on this solid basis of well-developed conceptual frameworks and experimental evidence. Although the experimental tasks used by cultural psychology researchers do not directly parallel the tasks or situations studied by survey researchers, this body of research is relevant in that it illuminates cultural differences in processes known to be involved in answering survey questions. We

---

<sup>1</sup> Survey Methods in Multinational, Multiregional, and Multicultural Contexts, edited by Harkness et al. Copyright © 2010 John Wiley & Sons, Inc.

offer conjectures about the likely survey measurement implications of cultural psychology research and outline an agenda for future theory-driven research more directly tied to the needs of survey researchers. Needless to say, our focus on one set of cultural axes—individualism and collectivism—does not imply that variation along other cultural dimensions is irrelevant to survey measurement; it merely reflects that the cognitive consequences of other variations are not yet sufficiently understood to lend themselves to a fruitful discussion.

The chapter is organized as follows. We first review core features of Western (individualist) and East Asian (collectivist) cultures and summarize key differences in basic cognitive and communicative processes. We then provide an overview of respondents' tasks (question comprehension, recall, judgment, response formatting, and editing) and address how individualism and collectivism may influence each of these. In discussing this body of research, we use the terms individualism and collectivism when discussing between-country comparisons, assuming that between-country differences are due in part to chronic differences in levels of individualism and collectivism. For clarity, when discussing the results of priming tasks and experiments which highlight the processes underlying such average cross-national differences, we describe the participants as using individual- and collective mindsets (see Oyserman, Sorensen, Reber, & Chen, 2009).

## **10.2 COLLECTIVISTIC AND INDIVIDUALISTIC CULTURES: BASIC DIFFERENCES**

A solid body of experimental research has documented pervasive differences in basic psychological processes between East Asia and Western Europe and North America (for reviews see Fiske et al., 1998; Kitayama & Cohen, 2007; Nisbett, 2004; Oyserman, Coon, & Kimmelmeier, 2002a). In the social domain, Western cultures conceptualize the self as autonomous and relatively independent, characterized by unique internal attributes that are largely independent of the momentary social situation (Markus & Kitayama, 1991). Relationships with others are assumed to operate on an equity basis and to be to the mutual benefit of both. Even family relationships can be severed if they become too imbalanced, draining, or unfulfilling. In contrast, East Asian cultures conceptualize the self as a mutually interdependent piece of a larger whole that is constituted in relationship with others. Relationships with others are assumed to be largely fixed by important group memberships. Relationships are, in that sense, obligatory. Unlike the individualistic model in which relationships that are unfulfilling are severed, within a collectivistic model relationships are understood as necessary to group memberships. Engagements with others follow set relational rules. Relationships are maintained because they are obligatory not because they are pleasant (for a review, see Oyserman et al., 2002a).

Given these tacit metatheories, Westerners explain social behavior primarily in terms of individuals, their traits and characteristics, whereas East Asians are more likely to draw on the social field of which an individual and his or her behavior is a part, resulting in reliable differences in causal attribution, impression formation, and prediction (see Nisbett, 2004; Oyserman et al., 2002a, Oyserman et al., 2009, for reviews). This higher emphasis on the social field among East Asians is further

reflected in between-group differences in both the structure of autobiographical memory (e.g., Han, Leichtman, & Wang, 1998) and in individuals' knowledge about their own and others' behavior (e.g., Ji, Schwarz, & Nisbett, 2000), as reviewed in Section 10.3.2. Moreover, differences in metatheories about the self foster differences in self-protective biases and self-presentational strategies (e.g., Lalwani, Shavitt, & Johnson, 2006). In a series of studies, Lalwani and colleagues (2006) demonstrate that while Americans and those higher in individualism use strategies that allow for positive self-presentation, those higher in collectivism are more likely to use strategies that allow for reduced chances of other's seeing the self in a negative light. In the following sections, we discuss each of these differences in more detail in the context of the survey tasks to which they are relevant.

From a cognitive perspective, different cultural orientations or mindsets require different cognitive procedures for their efficient execution (for a review, see Oyserman & Lee, 2007, 2008a; Oyserman & Sorensen, 2009; Oyserman et al., 2009). As outlined by Oyserman and her colleagues, an individual mindset is associated with procedures that facilitate focus on an isolated stimulus and its unique attributes, pulling the stimulus apart from the field. In contrast, the collective mindset is associated with procedures that facilitate the identification of relationships, emphasizing the embeddedness of a stimulus in its field.

The application of cognitive procedures that facilitate either the isolation of individual stimuli or the perception of their embeddedness in a context is not limited to social tasks and results in pervasive differences in perception, judgment, and memory in the social as well as nonsocial domain. While members of all cultures have command of the respective procedures, cultures differ in the chronic accessibility of these procedures and the likelihood of their spontaneous use. For example, East Asians show higher field dependency than Westerners on a variety of social and nonsocial tasks.

At the same time, chronic cultural differences in cognitive procedures can be overridden by contextual influences. When a collectivistic focus is temporarily induced among Westerners, their cognitive performance mirrors the spontaneous performance of Asians; conversely, when an individualistic focus is temporarily induced among Asians, their performance mirrors the spontaneous performance of Westerners (for a review see Oyserman & Lee, 2008b; Oyserman & Sorensen, 2009). Indeed, individual and collective mindset can be systematically produced through a number of priming procedures as well as by language used in context (for a review see Oyserman & Lee, 2007, 2008a; Oyserman & Sorensen, 2009). For example, Oyserman and Sorensen (2009) find that whereas Asian respondents are better at spontaneously recalling spatial relations among objects than American respondents, their recall is impaired when an individual mindset is temporarily induced. Conversely, American respondents' recall is improved when a collective mindset is temporarily induced (Oyserman et al., 2009).

Observations like these have two important implications. On the methodological side, they highlight the *causal* influence of differences in cultural orientation. Given that any two cultures differ in numerous respects, the mere naturalistic observation of a cross-national (cultural) difference does not allow us to identify the causal role of any particular characteristic, which requires experimental manipulations of the characteristic of interest. On the substantive side, these observations indicate that many key cultural differences in *cognitive procedures* do not require extensive

socialization in the intellectual traditions of a culture; instead, they are better portrayed as efficient responses to culturally dominant tasks, consistent with theories of situated cognition (see Oyserman & Lee, 2007; Oyserman & Sorensen, 2009; Oyserman et al., 2009, for more detailed discussion). Between-society differences in how everyday tasks, including the communication tasks relevant to survey research, are pragmatically understood are likely to be reflected in between-society differences in responses. We discuss this further below.

In using the shorthand of individualism or collectivism to describe societies, we do not intend to imply that individualism is the opposite of collectivism. Rather collectivism and individualism are orthogonal in the sense that societies socialize participants for both but differ in the extent that each of these dimensions is chronically or habitually salient. Given our focus on East Asian and Western societies, it is useful to note that a meta-analysis of the available data (Oyserman et al., 2002a) documents consistent, large, and homogeneous differences between China and the United States on these dimensions. Relative to American participants, Chinese participants report high on collectivism and low on individualism across a variety of measures. Thus, comparisons between these two countries provide clear examples of countries with predominantly collectivist or individualist orientations.

### 10.3 CULTURE AND SURVEY RESPONSE

Next, we address how these cultural orientations affect the survey response process, following the sequence of respondents' tasks from question comprehension, recall, and judgment to response editing and self-presentation (Strack & Martin, 1987; Tourangeau, 1984). We review both cross-national and immigrant-population studies and studies comparing results when using native language and language of adopted country. As will become clear, results have implications both for cross-national research and for studies including immigrants who may be interviewed either in their native language or the language of their adopted country.

#### 10.3.1 Making Sense of Questions: Pragmatic Inference Processes

As a first step, respondents need to understand the question to determine what information they are to provide. The survey literature on question comprehension has long focused on semantic issues, urging researchers to avoid unfamiliar terms and complex syntax. While this is good advice, it misses a crucial point: Language comprehension is not about words per se, but about speaker meaning (Clark & Schober, 1992). When asked, "What have you done today?" respondents understand the words, but they still need to determine which behaviors the researcher might be interested in before they can give a meaningful answer. To infer the intended or *pragmatic* meaning of the question, respondents make extensive use of contextual information, from the researcher's institutional affiliation and the topic of the survey to the content of preceding questions and the nature of the response alternatives (for a review see Schwarz, 1996). Reliance on contextual information is licensed by the tacit assumptions that underlie the conduct of conversations in daily life (Grice, 1975), where contributions are

expected to be meaningfully related to the goal of the conversation, the content of preceding utterances, and the questioner's interest and background knowledge.

While the general use of contextual information in pragmatic inference is assumed to be universal, members of collective cultures are more sensitive to conversational context than are members of individualist cultures. The limited available evidence suggests that this results in cultural differences in response patterns when the relevance of the contextual information needs to be detected, but not when its relevance is obvious, as the examples reviewed below will illustrate. For survey researchers, these cultural differences in sensitivity to the pragmatic context imply that methods that merely ensure the adequate translation of the literal meaning of a question are insufficient and need to be complemented by methods that assess the pragmatic equivalence of questions (for guidelines see Harkness, van de Vijver, & Mohler, 2003).

**Detecting Redundancy.** One condition under which the relevance of contextual information needs to be detected is the presentation of partially redundant questions. Conversational norms (Grice, 1975) require speakers to provide information that is new to the recipient, rather than to reiterate information that the recipient already has. This gives rise to a specific pattern of question order effects. For example, Schwarz, Strack, and Mai (1991) asked participants to report their marital satisfaction and their general life satisfaction in different orders. When the life satisfaction question preceded the marital satisfaction question, the answers correlated  $r = .32$ , but this correlation increased to  $r = .67$  when the question order was reversed. This pattern of correlations reflects that judgments are based on the information that is most accessible when the judgment is formed. To evaluate their general life satisfaction, respondents can draw on numerous aspects of their lives, including their marriage. When the general question is asked first, *some* respondents may spontaneously consider their marriage, whereas others may not, resulting in a modest correlation. In contrast, information about their marriage is on *all* respondents' minds when they answered the marital satisfaction question first, resulting in a markedly higher correlation. In a third condition, Schwarz and colleagues drew respondents' attention to the conversational norm of nonredundancy by placing both questions explicitly in the same conversational context. For these respondents, the questions were introduced with a lead-in that read, "We now have two questions about your life. The first pertains to your marital satisfaction and the second to your general life satisfaction." Under this condition, the correlation between the two questions dropped from  $r = .67$  to  $r = .18$ . Apparently, these respondents interpreted the general life satisfaction question as if it read, "Aside from your marriage, which you already told us about, how satisfied are you with other aspects of your life?" and hence disregarded information about their marriage, information which they had already provided, to consider other aspects of their life. Confirming this interpretation, a condition that presented this reworded version of the general life satisfaction question yielded a nearly identical correlation of  $r = .20$ .

If collectivistic respondents are more sensitive to conversational context than individualistic respondents, they should be more likely to notice the potential redun-

dancy of their answers even in the absence of a lead-in that draws their attention to it. Empirically, this is the case. Haberstroh, Oyserman, Schwarz, Kühnen, and Ji (2002) asked students in Heidelberg, Germany, and in Beijing, China, to report their academic satisfaction and their general life satisfaction, either in the academic-life or the life-academic order. In the German sample, the correlation *increased* from  $r = .53$  in the life-academic order to  $r = .78$  in the academic-life order, replicating the previously describe pattern (Schwarz et al., 1991). In contrast, the correlation *decreased* from  $r = .50$  in the life-academic order to  $r = .36$  in the academic-life order for Chinese respondents, indicating that they spontaneously recognized the redundancy problem and disregarded previously provided information. To isolate the causal role of social orientation, a subsequent experiment temporarily induced individualism or collectivism among German students (Haberstroh et al., 2002). When primed for individualism, the answers of German students correlated  $r = .76$  in the academic-life order, paralleling the correlation of  $r = .78$  previously observed in the German sample; but when primed for collectivism, this correlation dropped to  $r = .34$ , paralleling the correlation of  $r = .36$  previously observed in China.

In combination, these findings highlight several important points. First, chronically or temporarily collectivistic individuals are more sensitive to the conversational context than chronically or temporarily individualistic individuals. Second, differences in sensitivity to the conversational context can give rise to differential question interpretations, which can result in differential question order effects. Third, the underlying difference in question interpretation reflects differences in the pragmatic inference process, not differences in the literal meaning of the question. Such pragmatic differences can emerge even when the literal meaning of a question is perfectly equated through backtranslation procedures, as was the case in these studies. Careful translation of the *literal* meaning does not safeguard against differential interpretations of the *pragmatic* meaning in context. All participants understood the questions but only chronically or temporarily collectivistic participants assumed that the second question included the implied text, “aside from what you have just told me before” and so attempted to disregard information that they had already provided in response to the earlier question.

These findings also highlight the pitfalls of taking answers in cross-cultural studies at face value. Had the questions only been presented in the academic-life order, we might conclude that academic satisfaction figures more prominently in the lives of German than of Chinese students, apparently confirming that individual achievement plays a more important role in individualistic than in collectivistic cultures. Yet no such difference was observed in the life-academic order and the parallel findings with temporarily collectivistic German students indicate that the obtained pattern merely reflects differential sensitivity to conversational context.

***How Pervasive a Problem?*** Pragmatic inferences about the intended meaning of a question are at the heart of many context effects in survey measurement (see Schwarz, 1996, for a review). Are all of these effects more pronounced in interdependent than in independent cultures? On theoretical grounds, we do not

think this is the case and the available data are compatible with this (optimistic) conjecture.

On theoretical grounds, pragmatic inference is likely to be universal. When facing an ambiguous question, *all* respondents need to draw on contextual information to make sense of it. All respondents turn to the available information to arrive at an interpretation. For example, they use presented response alternatives to infer which behavior or opinion they are to report on (Schuman & Presser, 1981) and they attend to the numeric values of rating scales to infer what verbal scale labels mean (Schwarz, Knäuper, Hippler, Noelle-Neumann, & Clark, 1991). Pragmatic inferences of this type make use of information that is an integral part of the question itself; this information is attended to by *all* respondents and no particular sensitivity is needed to recognize its relevance to the question with which it is presented.<sup>2</sup>

In other cases, the relevance of contextual information is less obvious and needs to be detected by the respondent. Observance of the conversational norm of nonredundancy, for example, requires that respondents recognize the redundancy problem in the first place and chronically or temporarily collectivistic respondents are more likely to do so. By the same token, we assume that collectivistic respondents are more likely to consider background information about the questioner that may bear on the likely common ground and epistemic interest. For example, collectivistic respondents may be more sensitive to the questioner's institutional affiliations (Norenzayan & Schwarz, 1999) and the overall topic of the survey (Smith et al., 2006). We therefore conjecture that cultural differences in pragmatic inference will emerge when the relevance of contextual information needs to be *detected*, but not when its relevance is relatively obvious.

### 10.3.2 Recall and Judgment

Once respondents determine which information they are supposed to provide, they need to recall it from memory. This takes somewhat different forms for behavioral questions and attitude questions.

#### *Autobiographical Memory and Behavioral Reports*

*Content and Organization of Autobiographical Memory.* Cultural differences in the construal of self are reflected in the content and organization of autobiographical memory. These differences can already be observed at an early age. For example, Han and colleagues (1998) asked four- and six-year-old American and Chinese children to report on daily events, such as the things they did at bedtime the night

---

<sup>2</sup> Note, however, that the same pragmatic inference at the question interpretation stage can nevertheless result in differential substantive answers. For example, all respondents may infer from negative numeric values of the rating scale that the corresponding verbal endpoint label has a particularly negative meaning—yet their willingness to rate close others in these terms may differ as a function of cultural values (see Chapter 11, this volume). The latter effect reflects cultural differences in socially appropriate responding, rather than cultural differences in question comprehension.



before or how they spent their last birthday. Three striking differences emerged: differences in target of focus on self versus others, differences in depth versus breadth of memory, and differences in focus on internal states versus context.

With regard to target of focus, while all children made more references to the self than to others, the proportion of self to other references was more than three times higher for American than for Chinese children. With regard to depth versus breadth of memory, while the Chinese children talked about many minute details of the specific event in a succinct fashion, the American children talked at length about a few isolated aspects of personal interest rather than the event as a whole. Finally, with regard to differences in focus on internal states, American children's narratives contained twice as many references to their internal states, their emotions, preferences, and desires than was the case for Chinese children.

These differences are paralleled when adult participants are used. Wang and Ross (2007) review relevant recall literature that suggests parallel cultural differences in autobiographical memory. Adults of European descent recall earlier and more detailed childhood memories than do adults of Asian descent. These differences fit what would be expected if, in childhood, individualists' memories are more likely to be self-focused, focused on internal states, and detailed (as suggested by the Han et al., 1998, research summarized above). Similarly, Wang and Ross (2007) find first, that when asked to recall childhood events, adults of European descent recall events that they date to about three-and-a-half years of age while adults of Asian descent recall events that date on average to the period between ages four and five. Second, when asked to write down as much as they could about their early years before age five, European Americans and English participants produced more memories within the five-minute time limit than did Chinese participants, suggesting that memories are more self-linked in the former than in the latter case. Findings of this type indicate that accessible content of autobiographical memories varies with the salient cultural frame (see also Weintraub, 1978).

Such by-country differences may reflect differential processing at the encoding and/or recall stage. On the one hand, chronic differences in levels of individualism and collectivism may influence what people attend to and how they organize information while an event unfolds, resulting in differences at the encoding stage. Furthermore, chronic differences in individualism and collectivism (or other aspects of culture) may influence both what people attempt to retrieve and how they organize retrieved information in narrative form at the recall and reporting stage. These possibilities are not mutually exclusive and the available data do not allow us to estimate their relative contributions. Several studies show, however, that the language of survey administration is sufficient to elicit differential autobiographical reports, presumably because language serves as a prime that brings associated cultural conceptions to mind.

For example, Ross and colleagues (2002) observed that Chinese students at Canadian universities reported more collectivistic memories when the questions were presented and answered in Chinese rather than English. Moreover, their reports of daily moods showed a preponderance of positive moods under English language conditions, but equal levels of positive and negative moods under Chinese language conditions, consistent with cultural norms. To study this effect with autobiographical memories cued with standardized primes, Marian and Kaushanskaya (2004) had

participants pull slips of paper with words such as “balloon” on them. Participants were asked to describe a memory involving the word. When randomly assigned to use English rather than Russian, participants who were Russian immigrants to the United States describe memories that focus on the self significantly more often than when randomly assigned to use Russian. Effects are not due to whether the event occurred in the United States or Russia or to language proficiency (as tested by a linguist). Taken together, these studies suggest that language used in the survey may produce both temporary differences in retrieval and reconstruction as well as differences in self-presentation vis-à-vis an in-group (home language) or out-group (English language) member. Effects are also not limited to studies of groups in North America. Trafimow and colleagues (1997) found that bilingual Hong Kong students reported more private traits and fewer social roles when describing themselves in English than in Chinese, consistent with the associated cultural emphasis on individual vs. collective aspects of identity.

In each of these studies, responses in English were compared to those in another language rooted in a home culture presumed to be higher in collectivism. While, as noted above, the processes underlying the found differences in response await more detailed investigation, the available evidence suggests that social relations and roles figure more prominently in the memories of people in collective rather than individualistic cultures, whereas the reverse holds for individual characteristics and experiences. That parallel effects can be found by priming individualism and collectivism suggests that effects cannot simply be due to differences in what information is stored in memory. Instead, it is likely to be some combination of how information is stored and how it is cued for recall. It may be that culturally prominent characteristics are both represented in more detail and linked to a larger amount of other material than less prominent characteristics, making for differential recall unless less prominent characteristics are cued. Taken by itself, this suggests that autobiographical recall may be facilitated by recall cues that take advantage of the observed cultural differences. It is currently unknown, however, whether higher cultural prominence of an attribute is associated with higher accuracy or with higher recall and reporting bias, rendering recommendations about the use of differential recall cues premature. We consider this a promising avenue for future research.

Finally, it is worth noting that autobiographical events are more likely to be recalled when the language of the interview matches the language spoken during the relevant life period (e.g., Marian & Neisser, 2000). This is consistent with the general principle that recall is facilitated when the context of recall matches the context of encoding (e.g., Tulving & Thompson, 1973). It suggests that surveys of immigrant populations may benefit from matching the language of survey administration to the language spoken during the life period (such as pre- vs. post-immigration) or in the life domain (e.g., home vs. work) of interest. It should also be noted that language can cue individualism or collectivism or something else, depending on the pragmatic meaning of language in context. Oyserman and Lee (2008a) suggest that when the language used appears natural in context, elicited content is congruent with language. However, when language choice is perceived as an influence attempt, elicited content contrasts with language. Thus while studies such as that by Ross and colleagues (2002) suggest that Chinese language cues collectivism-relevant responses and English language cues individualism-

relevant responses, effects in the opposite direction have also been observed when the request to speak the non-native language reminded respondents of their country's colonial past (see Oyserman & Lee, 2007, for a review).

*Recall and Estimation: Public versus Private Behaviors.* As already noted, collectivistic cultures require a higher degree of attentiveness to others in the social context and this need for attentiveness is further compounded by an emphasis on "fitting in" and maintaining harmony in relationships (e.g., Triandis, 1995). To ensure that they "fit in," individuals need to monitor their own behavior as well as the behavior of others to avoid unwanted discrepancies. Note, however, that this need only applies to public behaviors, which are visible to others and hence need to be monitored. In contrast, private behaviors, which others cannot observe, neither require nor allow monitoring for fit. Accordingly, Asians may know more about their own public behaviors than Westerners, attenuating the need to rely on contextual cues when asked to provide behavioral reports. Empirically, this is the case, as Ji, Schwarz, and Nisbett (2000) observed in a study of behavioral frequency reports.

Numerous studies with Western samples demonstrated that respondents often rely on the numeric values of frequency scales to arrive at a frequency estimate (Schwarz, Hippler, Deutsch, & Strack, 1985). This results in higher frequency reports when the scale presents high rather than low frequency values (for a review see Schwarz, 1996). This effect is more pronounced when the behavior is poorly represented in memory because poor memory representation forces respondents to rely on an estimation strategy (Menon, Raghurir, & Schwarz, 1995). Taking advantage of this general observation, Ji and colleagues (2000) demonstrated a cross-cultural difference. After pretesting to choose behaviors of similar frequency in both countries, they demonstrated differences in reliance on scale information to estimate. Specifically, they asked students in China and the United States to report the frequency of various public and private behaviors along scales with high or low frequency values. Several findings are worth noting.

First, Chinese as well as American students reported higher frequencies along high frequency scales than along low frequency scales when their reports pertained to private, unobservable behaviors (such as the frequency of dreams or negative thoughts about others). Moreover, the size of the scale effect was almost identical in both countries. This indicates that respondents in both cultures relied on the same estimation strategy; it also supports our earlier contention that individualistic and collectivistic respondents are similarly sensitive to contextual information that clearly pertains to the task at hand (see Section 10.3.1). Second, American students were as influenced by the scale when they reported on public behaviors as when they reported on private behaviors. This is consistent with earlier findings and suggests that neither class of behaviors enjoys an advantage in memory for Westerners. Third, in stark contrast, Chinese students were unaffected by the response scale when they reported on public behaviors (like visiting the library or being late for class) and provided nearly identical frequency reports in an open response format and along high and low frequency scales. Much as the monitoring rationale would suggest, these behaviors were apparently well enough represented in memory to eliminate the need for context-based estimation strategies.

These cultural differences in response strategy resulted in reports that would invite opposite conclusions in a cross-cultural survey. When presented with an open response format, American and Chinese students reported similar frequencies of public behaviors, consistent with the selection criteria for the behaviors used in this study. But when presented with a frequency scale, American students reported either higher or lower behavioral frequencies than Chinese students, depending on whether the scale presented high or low numerical values. As a result, a researcher might conclude that Americans engage in the behavior just as often, less often, or more often than Chinese, solely depending on the response format of the question. No such cross-country differences were observed when the behavior was private and all respondents relied on contextual cues to arrive at an estimate.

*Attitude Questions.* When the question is an attitude question, researchers often hope that respondents recall and report a previously formed opinion. In most cases, however, respondents will not find an appropriate answer readily stored in memory and will need to form a judgment on the spot. In doing so, they do not retrieve all information that may be relevant to the topic, but truncate the search process once enough information has come to mind to form a judgment (Bodenhausen & Wyer, 1987). Accordingly, their judgment is based on the subset of potentially relevant information that is most accessible, which is often information brought to mind by preceding questions. How this information influences the judgment depends on whether it bears on an applicable norm or on features of the attitude object. We address both cases in turn.

*Norm Activation and the Language of Survey Administration.* In the late 1940s, Hyman and Sheatsley observed that Americans were more likely to endorse the right of a Soviet reporter to report freely about the United States when they had first been asked about the right of an American reporter to report freely about the Soviet Union. Presumably, this question sequence activated a norm of reciprocity or evenhandedness and later studies consistently found that norm activation affects survey response (for a review see Schuman & Presser, 1981). While the norm of reciprocity is widely shared across cultures, cultures differ in which other specific norms they endorse and the degree of importance they assign to them. Accordingly, a given question may be differentially likely to evoke a norm in different cultures, giving rise to pronounced differences in context effects.

One often overlooked variable that can affect the accessibility of culturally shared norms and meaning systems is the language of survey administration. For example, in a study of Greek students attending an American school in Greece, answers to the same questions administered in English and in Greek showed good correspondence in domains where American and Greek norms converged, but poor correspondence in domains where the norms diverged (Triandis et al., 1965). Apparently, the questions were answered within the cultural frame evoked by the language of the questionnaire. On the other hand, respondents may affirm their own cultural identity through more culture-consistent answers when the interview in a foreign language is perceived as part of an ingroup-outgroup juxtaposition (e.g., Bond &

Yang, 1982). These issues are of considerable applied importance for surveys of immigrant populations, which are often conducted in more than one language. Systematic experimentation is required to understand the underlying dynamics.

*Constructing the Attitude Object.* While the activation of norms through preceding questions can have a profound impact on survey responses, most question order effects reflect that preceding questions bring information to mind that bears on the nature of the attitude object. How this information influences respondents' judgments depends on how the information is *used* in forming a mental representation of the attitude object and of a standard against which the attitude object is evaluated (for a more detailed discussion see Schwarz & Bless, 2007; Sudman et al., 1996, Chapter 5).

Information that is *included* in the temporary representation formed of the attitude object results in *assimilation effects*; in this case, the judgment is more positive when positive rather than negative information comes to mind. In Section 10.3.1, we discussed a question order experiment with marital satisfaction and life satisfaction (Schwarz et al., 1991) and noted differences in correlation as a function of question order. These differences are also reflected in mean satisfaction levels: Happily married respondents reported higher, and unhappily married respondents reported lower, mean life satisfaction when the preceding marital satisfaction question brought information about their happy or unhappy marriage to mind (Schwarz et al., 1991). Conversely, happily married respondents reported lower, and unhappily married respondents reported higher, mean life satisfaction when a joint lead-in induced them to disregard previously provided information about their marriage. This is referred to as a *subtraction-based* contrast effect (or a "part-whole" contrast effect in Schuman & Presser, 1981): Subtracting positive (negative) information from the representation of the attitude object results in less positive (negative) judgments. As seen in Section 10.3.1, interdependent respondents are more sensitive to conversational contexts that require subtraction and more likely to show part-whole contrast effects (Haberstroh et al., 2002).

In addition, respondents may not only exclude accessible information from the representation formed of the attitude object, but may also use this information in constructing a standard of comparison. If the information is more extreme than other information used in constructing a standard, it results in a more positive (or negative) standard, relative to which the target is evaluated less positively (or negatively, respectively). For example, thinking about a politician who was involved in a scandal, say Richard Nixon, decreases trust in politicians in general. In theoretical terms, the exemplar (Nixon) is included in the representation formed of the superordinate category (American politicians), resulting in an assimilation effect. If the trustworthiness question pertains to a specific other politician, however, say, Bill Clinton, the primed exemplar cannot be included in the representation formed of the attitude object—after all, Clinton is not Nixon. In this case, Nixon serves as a standard of comparison, relative to which Clinton is evaluated as more trustworthy than would otherwise be the case (Schwarz & Bless, 1992). Such *comparison-based* contrast effects generalize to all items to which the standard is applicable, whereas *subtraction-based* contrast effects are limited to judgments of the object from which information is subtracted.

Any of the numerous variables that influence the categorization of information in general (for a review see Smith, 1995) can also influence whether information is used in forming a representation of the attitude object, resulting in assimilation effects, or a representation of the standard, resulting in contrast effects (Schwarz & Bless, 2007). We may therefore expect that recently documented cultural differences in categorization influence the emergence of assimilation vs. contrast effects in judgment. In general, individualistic individuals (Westerners or Asians induced into a temporary individualistic orientation) form more narrow categories and excel at separating stimuli, whereas collectivistic individuals (Asians or Westerners induced into a temporary collective orientation) form broader categories and excel at connecting stimuli (for a review see Oyserman & Lee, 2007, 2008a; Oyserman et al., 2009). These observations suggest several hypotheses that may be fruitfully explored in future research. First, Asians' tendency to form broader and more inclusive categories suggests that they may include information in the representation of the attitude object that Westerners exclude from this representation. Second, given that the impact of a given piece of information decreases with the amount of other information considered, any given piece of information should *ceteris paribus* exert less influence on Asians than on Westerners. Accordingly, Asians should be more likely to show assimilation effects than Westerners, but the size of these assimilation effects should be smaller. Third, Westerners' tendency to form narrow categories and to parse information into distinct units may facilitate the construction of comparison standards that are distinct from the attitude object. Hence, comparison-based contrast effects should be more likely in Western than in Asian samples.

Moreover, Westerners categorize objects on the basis of class membership whereas Asians categorize information on the basis of functional relationships (see Nisbett, 2004, for a review). For example, when asked to sort a cow, a dog, grass, and a tree into groups that go together, Western sortings (cow & dog vs. grass & tree) reflect membership in the general class of animals vs. plants, whereas Asian sortings reflect relationships (cow & grass vs. dog & tree). This use of different categorization rules may result in different mental representations of attitude objects and corresponding downstream differences in attitude judgments.

In sum, how respondents use accessible information in constructing representations of attitude objects and standards is a key determinant of the direction and size of question order effects in attitude reports. Basic research into cultural differences in categorization suggests that the underlying processes are culture sensitive, giving rise to differential context effects. Data bearing on these conjectures are not yet available.

### 10.3.3 Response Formatting and Editing

Members of all cultures attempt to present themselves in a favorable light. However, acceptable strategies for doing so, and the specific content that is considered favorable, differ between cultures (Heine et al., 1999; Lalwani et al., 2006). Individualist cultures encourage a view of the self in unique and positive terms that gives rise to numerous self-enhancement biases in form of unrealistically positive self-views and a preference for information that bolsters those views (for a review

see Baumeister, 1998). They further value honesty in interaction with strangers (Triandis, 1995) and the available evidence suggests that unrealistically positive self-views are held with sincerity, although embellished when communicated. In contrast, collectivist cultures emphasize the maintenance of harmonious relationships with others and are more concerned with fitting in and saving face, which discourages Western forms of self-enhancement as well as potentially controversial utterances. Moreover, limited “editing” of the truth is considered acceptable in the interest of maintaining harmony and saving face (Ho, 1976; Triandis, 1995). Accordingly, collectivism is associated with impression management measures, and individualism with self-enhancement measures, of socially desirable responding (Lalwani et al., 2006). Using the Eysenck Lie Scale (Eysenck & Eysenck, 1964) as an indicator of impression management behavior, van Hemert and colleagues (2002) observed a zero-order correlation of  $r = -.68$  between 23 countries’ mean individualism and mean Lie Scale scores.

The differential emphasis on maintaining harmony and avoiding controversy may also underlie the observation that Asian respondents are less likely than Westerners to use extreme values on rating scales (e.g., Chen, Lee, & Stevenson, 1995). Note, however, that this (usually small) difference in the use of rating scales may also reflect differences in scale anchoring. The previously discussed differences in cognitive process render it likely that Westerners focus on the unique features of the stimuli at hand, whereas Asians consider them in their broader context. If so, Asians would evaluate the stimuli relative to a more varied set, which would result in more moderate ratings of all but the most extreme stimuli. Any observed differences in ratings would reflect actual differences in perception in the latter case, but differences in response editing in the former case. Systematic experimentation is needed to determine the relative contribution of these processes, which are not mutually exclusive.

#### 10.4 SUMMARY

As our discussion indicates, cultural differences in basic cognitive and communicative processes have the potential to affect respondents’ performance at each step of the survey response process. Hence, any observed cross-country differences in the obtained answers may reflect true differences in attitudes and behaviors, differences in the response process, or an unknown mixture of both. While recent progress in cultural psychology and survey methods has set the stage for a fruitful investigation of these issues, the available research is often limited to global country comparisons. Because cultures differ along many dimensions, such comparisons provide little insight into the underlying processes and usually fail to isolate the causal contributions of specific variables. Experimental manipulations of the variables assumed to differ between cultures provide a more promising approach, and the observation of parallel effects in experiments and country comparisons offers some assurance that the relevant variables have been identified. We consider this a promising avenue for future CASM (cognitive aspects of survey methodology) research.