Cultural Effects on Perception and Cognition: Integrating Recent Findings and Reviewing Implications For Consumer Research

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We examine the effects of culture on perception and cognition following the latest research advances in several fields, including psychology and neuroscience. We critically examine a number of perceptual and cognitive differences across cultures, we suggest novel research-framing perspectives, and offer research directions.

[to cite]:

[url]:
http://www.acrwebsite.org/volumes/1012623/volumes/v40/NA-40

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Integrating Recent Findings and Reviewing Implications for Consumer Research
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EXTENDED ABSTRACT
Research increasingly suggests that cultural differences may account for variation in cross-cultural consumer reactions to several phenomena of interest to marketing scholars and practitioners, including consumer expectations, evaluations and reactions to service (Zhang, Beatty and Walsh 2008), or attitudes to consumerism in general (Tse, Belk and Zhou 1989). Despite the growing interest – focusing mainly on consumers’ behaviors – relatively little research has examined cross-cultural differences or similarities in pre-behavioral processes such as perception and cognition – with little attempt at explaining, synthesizing and extending existing evidence, especially in the light of the latest developments. Given the central role played by perception and cognition in subjective human experience and eventual behavior (Varela, Thompson, and Rosch 1999), studying cross-cultural differences in pre-behavioral domains is important in order to ultimately understand differences in cross-cultural consumer behaviors.

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK
Drawing upon the literature on cross-cultural, social, and cognitive psychology, as well as neuroscience, we offer a review of the role played by cultural environments and stimuli in shaping individual perception and processing of information (i.e. cultural conditioning effects). The idea of culturally-conditioned behavior emerges from recent developments in several cross-cultural disciplinary fields. Culture, acting as a “lens”, affects the basic sensory perceptions and modes of information processing by providing to humans sets of values, life expectations, modes of living, and codes of conduct (Markus and Kitayama 1991) through which people experience the world around them. Although perceptions and cognitions are mainly dependent on sensory inputs, they also involve a variety of top-down processes that are automatically recruited from cultural artifacts to actively construct a conscious percept from the input (Kitayama, Duffy, Kawamura, and Larsen 2003). Hence, basic exogenous sensory inputs (colours, sounds or other stimuli) cannot fully account for the emerging percept: they are modified by factors endogenous to the perceiver such as cultural expectations, values, or needs (Bruner 1957). However similarities also exist: for example the meaning of certain percepts (like the degree of symmetry of a human face) is universal across cultures.

We incorporate in our review – as a guiding conceptual framework – two recent trends reflecting a fast moving field. Firstly, we highlight new findings in the relationship between culture and self-construal (Markus and Kitayama 1991), a culturally-shaped individual difference variable in terms of independent and interdependent self-perception, which appears to be a key conveyor of cross-cultural values on individual perceptions, cognitions, and behaviors (Kastanakis and Balabanis 2011). Secondly, we introduce recent research evidence (Nisbett and Masuda 2003) suggesting that the physical environment and other culture-specific stimuli such as language (e.g. alphabetic vs. ideographic/phonetic languages) can – in conjunction with processes of cultural learning – affect both information perception and processing, as a result of brain plasticity.

Our review (key highlights in Table 1) uncovers cross-cultural differences in terms of sensory, environment/aesthetic, and perception of emotions. We also find differences in self- and group/other-perception. In addition, we find a number of cognitive differences in information processing, categorization, memory, and the processing of persuasion messages; as well as in decision-making, self-esteem, attributions and perspective-taking.

Table 1
Culturally-conditioned perceptual & cognitive orientation(s): Individualistic/Independent vs. Collectivist/Interdependent

<table>
<thead>
<tr>
<th>Perception</th>
<th>Individualistic/independent orientation</th>
<th>Collectivist/interdependent orientation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-perception</td>
<td>Autonomous, detached, differentiated</td>
<td>Inseparable, connected, non-differentiated</td>
</tr>
<tr>
<td>Perception of others/groups</td>
<td>Group exists to serve individual needs</td>
<td>Individuals exist to serve group needs</td>
</tr>
<tr>
<td>Perception of emotions</td>
<td>Individual-orientation, de-contextualized, non-relational</td>
<td>Group-orientation, contextual, relational</td>
</tr>
<tr>
<td>Perception of the environment and aesthetic preferences</td>
<td>Analytical, focal</td>
<td>Holistic, contextual</td>
</tr>
<tr>
<td>Sensory perception</td>
<td>Several differences between the two orientations across sensory channels</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cognition</th>
<th>Individualistic/Independent orientation</th>
<th>Collectivist/Interdependent orientation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perspective-taking</td>
<td>Low perspective-taking ability, egocentric errors, insider perspective</td>
<td>High perspective-taking ability, less egocentric errors, outsider perspective</td>
</tr>
<tr>
<td>Attributions &amp; causal judgments</td>
<td>Tendency for dispositional attributions</td>
<td>Tendency for situational, contextual attributions</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>High need for self-enhancement</td>
<td>Low need for self-enhancement</td>
</tr>
<tr>
<td>Information processing</td>
<td>Field-independent, focal, analytical</td>
<td>Field-dependent, contextual, holistic</td>
</tr>
<tr>
<td>Categorization</td>
<td>Rule-based, categorical</td>
<td>Relational</td>
</tr>
<tr>
<td>Memory</td>
<td>Self-related memories</td>
<td>Other-related, relational memories</td>
</tr>
<tr>
<td>Processing of persuasion messages and decision-making</td>
<td>Central-orientation (content of message), uncomfortable with contradictory information</td>
<td>Peripheral-orientation (how is the message delivered), comfortable with contradictory information</td>
</tr>
</tbody>
</table>
We encounter a series of striking findings that, taken together, consistently point towards two distinctive perceptual/cognitive orientations. We, therefore, suggest that there are two types of culture-dependent (or “culturally-conditioned”, in accordance with existing terminology) perceptual and cognitive orientations which we define as the overall, culture-specific, processes by which sensations are selected, organized and interpreted (culturally-conditioned perceptual orientation); as well as the overall, culture-specific, mental processes involved in gaining knowledge and comprehension – including thinking, knowing, remembering, judging and problem-solving (culturally-conditioned cognitive orientation). These are the “individualistic/interdependent”, mostly encountered in the Western world; and the “collectivist/collectivist”, mostly in the East (however, we also include studies on non-Asian collectivist cultures, such as Africa).

IMPLICATIONS AND DIRECTIONS FOR CONSUMER RESEARCH

As global consumer psychology research is in its infancy (Shavitt, Lee, and Johnson, 2008), we propose an agenda for future research along the lines of this review. We need to explore in more depth the propositions that natural environments (Nisbett and Masuda 2003) and language (Ji, Zhang, and Nisbett 2004; Ross, Xun, and Wilson 2002) are cultural factors that directly affect human perception and cognition. Nisbett and Masuda (2003) suggest that environments influence perception; and, more convincingly in our opinion, the resulting perceptual preferences prompt people to (re-) produce different environments. For example, because Asians tend to focus broadly on the field and attend to a large number of elements, they seem to (re-) construct environments with a large number of elements; Westerners focus, more narrowly, on a smaller number of elements and seem to prefer (and build) environments with a smaller number of elements. Hence, research could examine the relationship between different retailing environments and perceptual preferences. In addition, there is evidence that language can trigger a culture-bound view of the self and that East-Asian and Western identities may be stored in knowledge structures activated by their associated language (Ji et al. 2004; Ross et al. 2002). Research could explore related questions, such as how this phenomenon could affect the cultural consumer identities of multilingual new generations.

Another promising avenue for research opens from recent developments in neuroscience – suggesting cross-cultural differences in terms of neural correlates of various consumption-related mechanisms (Ames and Fiske 2010). For example, Gutchess, Welsh, Boduroğlu, and Park (2006) found that, when looking at pictures, Americans used more regions of the brain typically involved in the processing of objects, compared with Chinese. Other cross-cultural neural differences in information processing and perception, that invite interesting questions, include the taste of branded vs. non-branded products (McClure, Li, Tomlin, Cypert, Montague, and Montague 2004) and perception of colors (Davidoff 2001).

Overall, despite the youngness of the field of cross-cultural neuroscience, recent findings appear promising and need better integration in the consumer psychology literature. In this review we show how consumer research can benefit from embracing innovative approaches in viewing the world and appreciating the diversity offered by multiple perspectives originating outside the mainstream consumer psychology domains.

REFERENCES