Culture and the Contextualization of Care: A Prototype-Based Approach to Developing Health and Medical Visuals for International Audiences

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As recent media coverage of Ebola has demonstrated, there is a growing need to communicate health and medical information effectively on a global scale (Centre for Disease Control and Prevention, 2014). In fact, the ability to address a range of health and medical issues – such as the containment of infectious diseases – requires communication designers to provide information across countries and regions (Rimal & Lapinski, 2009). Doing so, however, involves more than just translating texts. Rather, it also requires creating visuals that effectively convey health and medical information to diverse audiences (e.g., healthcare providers and patients) in different cultures (Osborne, 2006; Quick Guide to Health Literacy, n.d.).

This situation requires communication designers to determine how the context in which information is presented affects what constitutes credible – or recognizable, acceptable, and believable – visual displays of information to cultural groups (Osborne, 2006; Quick Guide to Health Literacy, n.d.). This entry discusses how prototype theory can help communication designers address cultural expectations associated with visual design in health and medical contexts. The over-arching idea is to apply prototype theory to certain design areas associated with care giving. By doing so, communication designers can better contextualize visual information to meet the expectations of individuals from other cultures.
Context, Credibility, and Care

Cultures all have certain expectations of what constitutes an acceptable display of information in a given context (Hall, 1989; St.Amant, 2006). Materials that meet these expectations are generally viewed as “credible” or worth considering and using. Those that do not run the risk of being dismissed as lacking in credibility and deemed not worthy of consideration (Driskill, 1996; Woolever, 2001; St.Aamant, 2006). These expectations of credibility include the kinds of visuals used to convey information (Kostelnick, 1995; Qiuye, 2000; St.Amant, 2005). Moreover, such aspects can be particularly acute in relation to health and medical communication where visuals are often important to identifying needed items and performing specific processes in certain ways (Strategic and Proactive Communication Branch, 2009; Houts, Doak, Doak, & Loscalzo, 2006). As a result, communication designers need to develop visuals that a cultural audience considers credible if medical- and health-related information is to be accepted and acted upon as intended.

In many ways, medical and health information connects to one central principle: care. That is, such information is often used to determine how to best administer a particular kind of care – be it preventative, restorative, supportive, etc. – to a given individual (e.g., a patient). The challenge becomes determining what the context for administering care looks like (Bennett, Eglash, & Krishnamoorthy, 2011; Osborne, 2006). If health and medical content is presented in a context users recognize as legitimate, then individuals are more likely to view that content as credible or worth considering. Communication designers, therefore, need to take steps to contextualize information in a way that meets those expectations. In essence, communication designers must determine what the prototypical context for providing/receiving care looks like in different cultures.

Context, Expectations, and Credibility

The central issue here is expectations: Does something look like we expect it to? If so, we tend to consider it more credible; if not, less credible (Rosch, 1978; Aitchison, 1994; St.Amant, 2006).
expectations, however, are not universal. Rather, they are based on exposure over time. The more you see something and are told it represents a credible depiction of a given person, object, or place, the more likely you are to assume that particular visual represents the most appropriate, or most credible, visual representation of that person, object, or place (Aitchison, 1994; St.Amant, 2006). This connection between exposure over time and credibility means cultures can have different expectations of what a credible – or prototypical – representation of something should look like in health and medical contexts (Kostelnick, 1995; Qiuye, 2000; St.Amant, 2006). Thus, the process of care giving (i.e., administering or providing care) must be contextualized to meet these prototype expectations.

The challenge becomes determining the contextual factors cultures associate with credible visual design related to care giving (Osborne, 2006; Quick Guide to Health Literacy, n.d.). Addressing this situation is no easy task, for such factors can be highly nuanced and involve multiple aspects (Qiuye, 2000; Bennett, Eglash, & Krishnamoorthy, 2011). One solution can be methods that allow communication designers to identify those aspects cultural audiences associate with credible visual displays in relation to medical and health contexts. Such a method, moreover, needs to be both analytical and generative. That is, it needs to allow for the kind of analysis that can provide insights on how to develop credible visuals for individuals from other cultures. Thus, the mechanism must offer insights on the context of care – or what care giving looks like in different cultural settings. Communication designers can then use such insights to develop visuals that contextualize care to meet the credibility expectations of a given cultural group. Prototype theory can serve as a mechanism for achieving this objective.

Prototype Theory, Credibility, and Culture

Prototype theory examines the connections between visual representations and cultural preferences. As such, it can help communication designers understand and address differences in visual expectations and credibility. According to prototype theory, we all have a prototypical – or ideal – visual representation of what
an acceptable (i.e., credible) example of an item should look like (Rosch, 1978; Aitchison, 1994; St.Amant, 2006). These ideals are not monolithic. Rather, they are made up of a collection of features, or characteristics.

Every time we encounter something new – be it a person, an object, or a location/setting – we compare the characteristics of that new item to those of the other ideals in our mental database of “what things should look like.” The more characteristics that new item has in common with a particular ideal, the more likely we are to identify/classify that item as “a credible depiction” of the category of item represented by that ideal (Rosch, 1978; Aitchison, 1994; St.Amant, 2006). So, if our ideal representation of the mental category of “tool” is “hammer,” the more characteristics a new item has in common with a hammer, the more likely we are to recognize that item as a “tool” and accept it as a “credible representation” of a tool.

But here’s the catch: Not all cultures share a common set of expectations for what a credible example – or an ideal – of something is. Rather, credibility expectations associated with visual design can vary from culture to culture (Kostelnick, 1995; Qiuye, 2000; St.Amant, 2005). This variation can, in turn, affect the acceptance and the use of visual information. These expectations of credibility and visual representation can apply to persons (e.g., what does a teacher look like), objects (e.g., what does a physics textbook look like), or places/settings (e.g., what does a classroom look like). For this reason, communication designers cannot assume the ideal representation of an item in their own culture works with individuals from another culture (Woolever, 2001; Bennett, Eglash, & Krishnamoorthy, 2011). Doing so can create problems.

At issue is the connection between perceived credibility and use. If something doesn’t look like I expect it to, I might not recognize what it is. This factor means I might not use a “non-credible” – or unrecognizable – item as intended, if at all. If, for example, an object doesn’t look like a stethoscope, would I think of using it to check for a heartbeat? In terms of health and medical communication, if an informational item (e.g., a brochure) does not look like it is designed to convey health and medical content (i.e.,
the images it contains do no readily convey the message “health/medical information”), will I turn to it as a resource when seeking such information?

Moreover, even if I recognize what an object is, there is no guarantee I will consider it credible/acceptable enough to make use of it. For example, just because I recognize something as a medical device (e.g., it resembles one) does not mean I will consider it a credible/acceptable/legitimate one – or one that I would allow myself to be examined with. Likewise, I might be unwilling to consider health or medical documents that contain images of “questionable” or “non-credible” devices. Again, a failure to match my prototype/ideal expectations affects use – and affects the successful transmission of health and medical content.

The solution becomes identifying the characteristics a cultural audience associates with the credible depiction (i.e., ideal) of something (Aitchison, 1994; St.Amant, 2006). Once known, these characteristics can guide the process of developing more effective visuals for international audiences. By applying prototype theory in a particular way, communication designers can gain initial insights into what these prototype-related expectations are. These insights can then help with the creation of health- and medical-related visuals that more effectively meet the credibility expectations of a given culture.

**Applying the Theory to Create Context**

Prototype theory can help guide the audience analysis process when creating visuals for international contexts. The idea is to focus the analysis on identifying certain factors (i.e., characteristics) associated with credible visuals for audiences from another culture. Once identified, these factors can serve as a foundation communication designers can use to create more effective/credible health and medical visuals for the members of that culture.

The process works as follows: Communication designers would first review an initial example of an image the individuals from a given culture have designed for members of their same culture (St.Amant, 2006; Bennett, Eglash, & Krishnamoorthy, 2011). (Alternatively, communication designers could review a picture
showing what the members of a culture associate with visual representations of that item.) Next, communication designers should identify the different characteristics of the ideal depicted in the initial image. These characteristics would be put into a checklist of “features” to include when designing images of “X” for culture “Y.”

Using this initial checklist, communication designers would review other representations of that item – images designed by members of the culture for members of that culture. The objective is to compare the features of the initial checklist against multiple examples of the same item as represented in the particular culture. The more often a characteristic appears, the more likely it is to stay on the checklist. The less often, the more likely it is to be removed from the checklist. The idea is to use this comparative approach to identify those characteristics most strongly associated with and expected in credible depictions of the related object. Through this approach, communication designers can better determine those features the ideal representation of an item should display to be considered recognizable and credible to a particular cultural group. In relation to health and medical communication, the central question becomes “What items should I focus on when doing this kind of analysis?”

**Contextualizing Care for Cultures**

Numerous factors can come into play in every health- and medical-communication situation. However, three kinds of visuals are often central to providing care effectively. They are those individuals who administer care (i.e., caregivers), those objects used to provide care (i.e., the materials of care giving), and those settings in which care is administered (i.e., settings of care giving).

**Contextualizing Caregivers**

The central question to answer is “Who is expected to provide health or medical care in this cultural context?” For many individuals, the default assumption is that a specific medical professional (e.g., a physician or a nurse) will administer/provide care. But that is not always the case. For this reason, communication designers first need to determine who tends to
provide the kind of care being documented in a particular cultural context. The next item to consider is what do the members of that culture expect that recognized caregiver to look like. In most situations, caregivers display certain characteristics that identify their status as “credible caregiver” (e.g., the white lab coat and stethoscope associated with physicians in many Western cultures). By reviewing multiple examples of recognized (i.e., credible) caregivers in a particular cultural context, communication designers can identify such characteristics. They can then use this information as a foundation for developing visual representations of caregivers that display these characteristics. In so doing, communication designers contextualize that visual within the expectations of a particular cultural group.

**Contextualizing the Materials of Care Giving**

The central question to consider is “What do the objects – or materials – associated with credible care giving look like?” These materials could range from tools used to perform different care giving activities (e.g., stethoscopes) to treatments (e.g., medications). The idea is that the materials used to provide care giving affect perceptions of how credible the related care is. Would one, for example, ingest a “medication” that did not mirror that person’s expectations of what credible medication should look like? Similarly, would individuals willingly allow themselves to be probed by an item that was not recognized as a credible implement for performing such an action?

The challenge for communication designers becomes identifying those materials members of a culture expect to encounter when receiving certain kinds of care/treatment in a care-giving context. Once identified, the next factor to consider is what features – or characteristics – are associated with those credible materials of care. (For example, what characteristics does something need to have in order to be considered a credible medication for use?) Once known, communication designers can use this information to create visual representations of credible care giving materials, implements, tools, etc. for individuals from another culture. In so doing, they further contextualize visual information to address the expectations of another culture.
Contextualizing Settings of Care Giving

The central question to address is “What does a credible setting for administering or receiving care look like?” We all expect legitimate – or credible – care to be administered in certain places or settings. And we often assume certain items, or features (i.e., characteristics), will be present in such settings. If asked, for example, many of us could easily list off the kinds of items – or features – we expect to encounter in an examining room (e.g., examination table, red box for disposing biomedical waste, jars of cotton swabs and tongue depressors, etc.). If we encounter a setting that lacks these features/characteristics, we might doubt the credibility of the care we are to receive in that environment. So, when creating images that depict individuals receiving health or medical care, communication designers need to contextualize this setting by giving it the features the related culture associates with a credible setting for administering/receiving care. Again, by reviewing multiple visual examples of the setting in which care is administered, communication designers can re-create contexts that meet the expectations of a cultural group.

The items noted here might seem self-obvious. However, it is often common to assume the context of credible care giving expected in our culture is universal (Woolever, 2001; Bennett, Eglash, & Krishnamoorthy, 2011). For this reason, communication designers need to understand what visual elements cultures associate with credible care giving. They can then use this knowledge to design health or medical visuals that contextualize that information to meet the expectations of audiences from other cultures.

Concluding Thoughts

Expectations associated with care giving are complex. This complexity only increases when health and medical information needs to be conveyed to individuals from a different culture. Yet understanding and addressing such expectations are essential to effective health and medical communication in global contexts. The prototype-based approach overviewed here represents an initial step toward understanding such factors. By employing it, communication designers can better contextualize health and
medical information to meet the communication – and the credibility – expectations of other cultural groups. In so doing, communication designers can increase the likelihood that this information is used in different cultural contexts.

**Works Cited**


