

ERRATA

Complex Social Categories

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Cecilia G. Conaco

Table 1. Experiment 1: Partition of Attributes in the Complex Category

| Attribute Type | Category novelty: | |
|-------------------------|-------------------|----------|
| | Novel | Existent |
| Category x attribute | .32 | .16 |
| Category y attribute | .31 | .22 |
| Joint x and y attribute | .09 | .24 |
| Emergent attribute | .28 | .39 |

Note: Numbers are mean proportions of attributes of a particular type. Means with different superscripts differ significantly from one another (by the Scheffé post hoc comparison method).

The data from the analysis of multiple category components showed that over half of the attributes mentioned as characteristic of the simple categories (see Table 1).

In terms of the models tested, the results of the first experiment indicated that no single pure model may be applicable. A combination model integrating elements of the emergent, hierarchical, and the category conjunction models may provide a better fit when describing the structure of the complex category.

It was also initially hypothesized that the existent complex category would ultimately function just like any simple category. The list generation time data was consistent with this prediction (see Table 2).

When the complex category was established and familiar, the length of time to list its attributes was not significantly different from the length of time to list attributes of the constituents.

As in Experiment 1, the results of the second study showed a similar pattern in the relationship of the constituent categories to the complex category (see Table 3).

Table 2. Experiment 1: Mean time for list generation (in minutes)

| Category Structure: | Category novelty: | |
|---------------------|-------------------|----------|
| | Novel | Existent |
| multiple category | 3.95 | 3.56 |
| simple category | 3.37 | 3.17 |

Table 3. Experiment 2: Partition of attributes in the complex category

| Attribute Type: | Category novelty: | |
|-------------------------|-------------------|------------------|
| | Novel | Existent |
| category x attribute | .26 ^a | .20 ^a |
| category y attribute | .26 ^{ab} | .22 ^a |
| joint x and y attribute | .09 ^d | .24 ^c |
| emergent attribute | .39 ^b | .34 ^b |

Note: Numbers are mean proportions of attributes of a particular type. Means with different superscripts differ significantly from one another (by Scheffé post hoc comparison method).

The pattern in the proportion of attributes from the various sources (i.e. from each constituent independently, from the constituents jointly, from neither constituent) for the existent complex category was replicated in this study. As in the first study, emergent properties were also found to be very important and to play a major role in complex category representation.

Another issue of interest addressed in the second study was the richness and predictiveness of the complex category compared to its simple constituents. The results of this experiment demonstrate that only when the complex category is novel and perhaps still in the formative stage is it less rich and predictive than the simple category. Once established and familiar, the complex category is, at least just as predictive as the simple category (see Table 4).

Table 4. Experiment 2: Category richness and predictiveness

| Category Structure: | Category novelty: | |
|---------------------|-------------------|-------------------|
| | Novel | Existent |
| multiple category | 6.00 ^a | 7.17 ^b |
| simple category | 7.04 ^a | 7.06 ^a |

Note: Numbers are mean number of traits listed. Means with different superscripts differ significantly from one another (by Scheffé post hoc comparison method).

Another finding consistent with the results of the first study was the perception by the subjects that the novel complex category was significantly more difficult to describe than the existent complex category and its constituent categories (see Table 5).

Table 5. Experiment 2: Scale ratings on the subjective perception of task difficulty (1 = very difficult, 9 = very easy)

| | Category novelty: | |
|--------------------|-------------------|----------|
| | Novel | Existent |
| Category Structure | 3.38a | 5.10b |
| multiple category | 5.55b | 5.49b |

Note: Numbers are mean ratings of task difficulty. Means with different superscripts differ significantly from one another (by Scheffe post hoc comparison method).

What do these results mean? Of interest in these studies was the nature of the representation of a complex social category based on information about multiple group memberships. In previous research, simple categorization has been the focus of interest. Even in cases of multiple group membership, researchers have argued that social perceivers access only simple categories at a time as the basis for their social judgements (Allen et al., 1983). The work on cross-categorization (Deschamps & Doise, 1978; Commins & Lockwood, 1978; Vanbeselaere, 1987; Brewe et al., 1987), however, weakens this argument by demonstrating that perceivers can and do use integrated information about the multiple category memberships as the basis of their response. The previous researches discussed the weakening of category boundaries in crossed categorization (Arcuri, 1982) but failed to mention the possibility of changes in the featural representation of the amalgam category which may have affected or led to the redefinition of category boundaries. The contribution of the present research is a closer look at the nature of the category representation that is considered the foundation of these intergroup processes. This research looked at the complex category in terms of its simple constituents. This research also tried to look into possible evolutionary aspects of complex categories.

The present research produced several results of interest. The data clearly showed a difference between complex novel and existent complex categories. The novel complex category was less rich and predictive (i.e., had fewer attributes listed), was perceived to be more difficult by subjects, and

had longer list generation times than their constituent simple categories. The majority of the attributes listed to describe the novel complex category were either attributes of the constituents alone or emergent properties.

The existent complex category, on the other hand, was just as rich and predictive, was perceived as just as easy, and had list generation times of the same length as their constituent simple categories. The greatest proportion of attributes listed to describe the existent complex category were new and emergent properties.

The present research accomplished several things: First, it established that perceivers can and do have representatives for complex social categories (or, at least, for compound categories as the target categories used in these experiments were) independent of their representations of the simple component categories. Given the multiple group memberships of target individuals, this suggests that it need not always be the case that target individual based on a multiple group memberships. More research needs to be done, however, to identify the factors, both situational and dispositional, which may influence the development and use of these complex category representations.

There is sufficient evidence from both Experiments 1 and 2 to show that the complex category is a different entity from its components and that it is represented by a composite incorporating some elements of its constituents. There is also evidence indicating that the complex category is represented not just as simple union or intersection of its constituents but is transformed into a new category with emergent features, attributes which do not come from its constituents.

What these experiments do not address, however, is how the constituent attributes are selected for inclusion in the complex category prototype. A logical next step in the research should address this issue. More work should also be done to test if the results of these experiments apply equally with an involved social perceiver who is a member of either one of the constituent