Pets’ Position within the Family Structure from the Owners’ Perspective: Sources and Consequences of Owners’ Views

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Arts in Sociology

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ABSTRACT- Pets’ Position within the Family Structure from the Owners’ Perspective: Sources and Consequences of Owners’ Views

Advances in the study of human relationships abound, but one area is lacking. It is still uncommon to include people’s relationships with their pets in these studies. With secondary survey data and regression analysis, the understanding of a pet as a person by its’ owner is established. This thesis analyzes six variables to predict whether a human will come to think of their pet as a person: pet type, pet owner’s gender, the membership of the pet in the family, marital status, presence of children in the household, and educational attainment. The major hypothesis is that people who tend to be relationally deprived will more likely think of their pet as a person, and the results support it.

KEY WORDS-
Pets, family, human-animal bond, anthropomorphism
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Pets’ Position within the Family Structure from the Owners’ Perspective: Sources and Consequences of Owners’ Views

This study seeks to advance knowledge of human social networks, by exploring how people incorporate pet animals into their networks, as well as how they understand their pet’s role as a social actor. There is a striking sociological research gap here: a disjunction between, on the one hand, numerous anecdotes from everyday life, literature, and history of life-changing human-animal relationships and an emerging interest in human-animal relationships among evolutionary biologists. Indeed the distinguished biologist E.O. Wilson has dubbed the emerging field “Biophilia” (1984) – and, on the other hand, the astonishingly nearly complete absence of animals from sociologists’ many, rich, and varied studies of meaningful relationships. Sociologists have studied an impressive array of relationships among humans, but have largely neglected to study humans’ relationships with animals. The relationships we form are at the core of the human experience, which sociology has, from the beginning, sought to understand (e.g. Durkheim 1893; Simmel 1950; Tönnies 1887). Without the need to belong, families, communities, and large-scale societies cease to exist.

Sociology has largely ignored other species in its quest to understand human behavior. Nonetheless, 300 million Americans between their own 78.2 million household dogs and 86.4 million household cats owned, according to the American Pet Products
Association’s 2011-2012 National Pet Owners Survey (as cited in The Humane Society of the United States, 2011) (United States Census Bureau 2012). That is approximately one dog and one cat for every four Americans. This figure leaves out the multitude of pet rabbits, hamsters, goldfish, and other domestic animals that also inhabit our homes. Clearly, animals, pets in particular, inhabit a large part of the human world, at least numerically speaking.

Dillard-Wright makes the argument that, for this reason, a full account of human social relationships cannot omit non-human animals: Human lives are intertwined with the lives of their pets (2009). In fact, recent research suggests that dogs can enhance both bonding and bridging social capital by enhancing neighborhood contacts and interactions as well as by providing social support to their owners (Wood, Giles-Corti, and Bulsara 2005).

Nor can humans deny that we belong to the animal kingdom. Human evolution from apes is a widespread and well-accepted scientific theory, but in our current anthropocentric world we often forget our humble beginnings. Within sociobiology, it is understood that human nature is a derivation of our evolutionary past as apes (Turner and Maryanski 2008), but we also share evolutionary history with another species: the dog. The oldest domesticated species, the dog, is said to have coevolved with humans, meaning that humans did not simply use dogs to their benefit, but dogs used humans for their benefit as well. The oldest fossil evidence dates the dog to 31,700 years ago (Germonpre et al. 2009); therefore, humans have had ample time to weave the domesticated dog and perhaps other species into their human families.
ANIMALS IN SOCIOLOGY

Though including animals in the study of sociology may be a shocking proposition to most sociologists, there are other sociologists who hold a similar position to Dillard-Wright. In 2007, Sanders (331) argued that animals are “self-aware social actors” and by understanding animals, one could redefine the concept of mind by removing the requirement of verbal language, and would encourage an appreciation for animals that could produce an ethical change of our treatment of animals. Of course, this a much different view of animals than the classical sociological theorists held.

*Animals in Classical Sociology*

The fundamental aspect of sociology is the study of the human animal, so, unsurprisingly; a basic foray into sociology is defining “human.” In sociology’s infancy, the mention of animals was mainly to point out our distinction from the rest of the animal kingdom. As early as the late nineteenth century, Emile Durkheim, whom some consider the father of modern sociology, delineates “human” as unique among animals in that “…human activity naturally aspires beyond assignable limits and sets itself unattainable goals” (1951:247-248). It is a very practical matter to establish what one means exactly by the term “human” when endeavoring to study human behavior, so the human-animal delineation is appropriate and quite pragmatic. Another founding father of sociology, Karl Marx, also addressed humanity’s uniqueness. Marx defined humanity by emphasizing the use of “creative social activity”. In the current generation of sociology,
Marx has been interpreted as espousing the differences between humans and animals while also including some similarities of human and animal needs without the assumption of the superiority of humans (Wilde 2000: 39).

*Animal Analogies to Human Behavior*

A brief detour into scientific history will provide us with a better background for the emergence of the acceptability of using animals to analogously study human behavior in social science. In the late nineteenth century and into the early twentieth century, a key figure in this history, scientist Ivan Pavlov, was performing a study on dogs’ salivation and by happenstance stumbled upon classical conditioning (Fredholm 2001; McLeod 2007). Pavlov noticed that the dogs would begin to salivate whenever his lab assistant who fed the dogs would enter the room. To prove his theory that the dogs had learned to associate his lab assistant with food, he performed another experiment in which he rang a bell before feeding the dogs. Eventually the ringing of the bell alone would cause the dogs to salivate. These findings not only influenced ideas on animal behavior, but on human behavior as well. It changed the way we understand learning and how we can study behavior objectively.

Influenced by the writings of Pavlov, the psychologist B. F. Skinner was interested in linking experimental conditions to behavioral responses (Vargas 2005). Skinner used experiments on rats to discover operant conditioning, a method of teaching behaviors by rewarding behaviors that are somewhat similar to the desired behavior (PBS
Skinner made the leap from rat and pigeon behavior to human behavior on November 11, 1953 while visiting a daughter’s math class when he realized that the teacher’s methods were contrary to what he had learned in his work with rats and pigeons. Most importantly, to adapt training to the subject’s skill level, rather than teaching children math that is clearly too easy or too hard, and to also, provide immediate feedback rather than to wait until the whole page was completed (Vargus 2005). This led to Skinner developing the teaching machine that enabled children to practice their math, and developing Programmed Instruction that taught children new skills by quizzing them with questions that eventually grew more difficult as the student progressed. Through the work of B. F. Skinner, animal behavior began to be recognized as analogous to human behavior although it did make many uncomfortable to be compared to animals (Catania 1992).

George C. Homans used B. F. Skinner’s propositions of behavioral psychology along with the work of Skinner’s student, Herrnstein to develop his own theory of social behavior (Homans 1983). Eventually using Skinner and Herrnstein’s work with animals, Homans developed social exchange theory, the theory that social behavior is shaped by people’s direct experience and perceptions of risk and reward or costs and benefits.

**Human-Animal Relationships**

Human beings are naturally social creatures. Humans crave connections with humans and non-humans alike. One’s social network is extremely important for physical
and mental well-being. Most people with pets in advanced societies consider their animals to be “part of the family” (Bonas, McNicholas, and Collis 2005). A dog is often referred to as “man’s best friend.” According to Kurdek (2009), men prefer their dogs to all other members of their social group excluding their partner. About half of dog-owning adults (and 70 percent of dog-owning adolescents) report confiding in their dogs (Frumkin 2001). Moreover, almost half, 45 percent, of pet-owning respondents to an internet survey gave dogs the highest ratings for measures of Ainsworth’s four measures of attachment figures: safe haven, the alleviation of distress; secure base, dependable sources of comfort; proximity maintenance, the enjoyment of their proximity and accessibility; and separation distress (Kurdek 2009). Moreover, in both Australia and Germany, dog owners have higher subjective well-being than non-owners, and the relationship seems likely to be causal – the companionship of the dog raises its owner’s subjective well being – because longitudinal surveys controlling for prior subjective well-being levels show that people who acquire dogs are happier thereafter (Headey and Krause 1999; see also Serpell 1991). Besides the enhancement of subjective well-being that is of central interest here, dogs appear to enhance their owner’s physical health, in countries ranging from China to Germany to Australia and the US (e.g. Headey, Na and Zheng 2008).

Because so many people clearly describe their pets as family members (Bonas, McNicholas, Collis 2005), it raises the question of whether or not their pets are considered human, are anthropomorphized. Anthropomorphism is a process in which
human characteristics are attributed to non-human beings. As household pets go through this process, they become more and more humanized as a result.

It is thought that anthropomorphism is motivated by one of two reasons: loneliness or to explain the unknown (Waytz and Morewedge, 2010), although both may be involved. There is much evidence to show that anthropomorphism in general occurs heavily in people’s attempts at understanding and explaining the unpredictable, but it is more likely that the anthropomorphism of pets is due to a desire for social connection. For instance, McConnell and colleagues’ (2011) studies on the benefits of pet ownership show that pet owners who were more likely to anthropomorphize their pets were also more likely to be depressed and less happy, but do not show a direct correlation of loneliness with the anthropomorphism of pets. Importantly, ratings of pets on social network and social support measures originally designed for human family members reveal largely the same pattern of dimensions and intensity (Bonas, McNicholas, and Collis, 2005). Furthermore, 87 percent of the urban pet owners of Providence, RI in Albert and Bulcroft’s (1988) work believed their pets to be a member of the family, a result which stresses the importance of pets as a social connection. In the same study, never-married, divorced, and widowed individuals, as well as individuals who do not have children in the home score higher on pet attachment. This provides additional evidence that pets serve as a source of social connection. Similar to these results are their statistics from these same studies on pet anthropomorphism; people who are divorced, never-married, or had one or no children were more likely to anthropomorphize their pet. This suggests there is quite a substantial difference in terms of how one views their pet
based on their position in the family life cycle. The importance of pets as social support providers is also revealed in a longitudinal study of Medicare enrollees that found that pet owners experienced milder negative impacts of adverse life events (e.g. widowhood or divorce) on subjective well-being and mental health (Siegel 1990).

The process of humanizing pets is visible in the United States, as well as in other parts of the globe. Ambros’s (2010) investigation into the Japanese pet memorial spaces demonstrates how pets have become more humanized over time, as they reside in life and in death with their owners. In contemporary Japan, the inclusion or exclusion of pets’ remains with human remains symbolizes the hybrid position of pets between nonhuman animal and human. Ambros’s insights on the animal-human hybrid of the household pet could very easily translate into United States’s society, in which household pets are raised above mere beasts and yet, not given full human status. As pets gain importance in people’s social networks worldwide, the role of the household pet in social networks, more specifically the family, will become more and more salient as time progresses.

HYPOTHESES

The key hypotheses of this study are as follows:

H$_0$: Social relations have no effect on the consideration of pets as human.

H$_A$: Social relations have an effect on the consideration of pets as human.
H_{A1}: Relational deprivation will increase the likelihood of individuals considering pets as human.

H_{A1a}: Females will be more likely to consider pets as human.

H_{A1b}: Single individuals will be more likely to consider pets as human.

H_{A1c}: The absence of children in the home will increase the likelihood of individuals considering pets as human.

H_{A2}: The presence of strong human relations will decrease the likelihood of individuals to consider pets as human.

H_{A2a}: Males will be less likely to consider pets as human.

H_{A2b}: Married individuals will be less likely to consider pets as human.

H_{A2c}: The presence of children in the home will decrease the likelihood of individuals considering pets as human.

H_{A3}: A strong relationship with a pet will increase the likelihood of individuals considering pets as human.

H_{A3a}: Individuals who consider a pet as family will be more likely to consider pets as humans.

DATA AND MEASUREMENT

The data were collected in the CBS News/ New York Times Campaign Fundraising/ Movies Poll conducted during April 2-5, 1997 using telephone interview
polls. Participants (i.e. sample members) were selected using random digit dialing. The reason for using random digit dialing rather than telephone directory/ telephone book sampling is that random digit dialing provides a random sample that includes unlisted numbers. This is important because people who choose to have unlisted numbers are not a random sample (e.g. Bernard 2012). The survey was limited to the adult population of the United States with a landline telephone at home. This means that the scope of generalization is limited: Young adults, people who move frequently, homeless people, immigrants, and very old people are under-represented. Thus we can generalize to the population of Americans living in households with a landline telephone, not to the U.S. population as a whole.

Education was collected as a categorical variable. Original categories were “not a high school grad,” “high school grad,” “some college (trade or business),” “college grad,” and “post grad work or degree.” Because it is inherently a quantitative variable, education was recoded into approximate years of schooling for each category to gain more statistical power in a logistic regression. “Not a high school grad” was recoded to 10. “High school grad” was recoded to 12. “Some college (trade or business)” was coded to 14. “College grad” was coded to 16. Post grad work or degree” was recoded to18. Three measures of relational deprivation/ relational adequacy were used: Gender, Marital Status, and Children Living in Home. In measuring gender, female was the reference category coded to 1 and male was coded to zero. Marital status was originally collected in the form of a multiple choice question asking if the respondent was married, divorced, separated, widowed, or never been married. It was recoded into a dichotomous
variable, with married coded as 1 and all other responses as 0, in order to focus on the central contrast between persons who have a marital social bond and all others. Children living at home was a dichotomous variable coded 1 if there were any children living at home and 0 otherwise. Whether the respondent considered their pet as family was a dichotomous, yes or no, question. Respondents who consider their pet as family were scored 1 on this variable and those who did not consider their pet as family were scored 0.

DESCRIPTIVE RESULTS

Out of the entire sample, 54.5 percent of the survey respondents owned at least one pet. Individuals who were not pet owners were not asked any further questions regarding pets. The remainder of this thesis focuses entirely on the pet owners. The sample contained 734 pet-owning survey respondents. 26.2 percent of pet owners reported that they thought of their pet as a person (Figure 1).
Characteristics of the Sample of Pet Owners

Individuals who did not complete high school made up 9.7 percent of the sample, high school graduates were 33.7 percent, individuals with some college made up 25.2 percent of the sample, college graduates were 18.0 percent, and individuals with post graduate work or degrees were 13.5 percent of the sample (Figure 2). Females made up 54.3 percent, and males were the remaining 45.7 percent of the sample (Figure 3). The sample was also composed of 46.8 percent single individuals and 53.2 percent married individuals (Figure 4). 40.8 percent of the sample reported that they had children living in the home. Focusing on the pet owners, thinking of pets as family is widespread, but less than a majority do so. 45.5 percent of pet owners reported they thought of their pets as family (Figure 5).
ANALYTIC RESULTS

In order to examine the social sources of perceiving one’s pet as human, a logistic regression was conducted. It used the following predictor variables: Pet Type, Consideration of Pet as Family, Marital Status, Presence of Children in the Household, Gender, and Education.

One striking result of the logistic regression is that the likelihood that one will consider pets as human decreases by 2.7 percent for each year of additional education, on average, holding all the other independent variables constant (Figure 6). This effect is significant at $\alpha=0.05$. 

Figure 6

**Predicted Probabilities- Pet as Person by Education**

- Predicted Values
- Lower Limit of Confidence Interval
- Upper Limit of Confidence Interval
The logistic regression also revealed that, on average, women are 7 percent more likely than men to consider pets human, holding all the other independent variables constant (Figure 7). This effect is significant at $\alpha=0.05$.

The logistic regression further revealed that, on average, married individuals are 9.6 percent less likely than single individuals to consider pets human, holding all other independent variables constant (Figure 8). This effect is significant at $\alpha=0.01$. 

Figure 7

**Predicted Probabilities- Pet as Person by Owner's Gender**

<table>
<thead>
<tr>
<th>Predicted Value</th>
<th>Lower Limit of Confidence Interval</th>
<th>Upper Limit of Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.25</td>
<td>0.23</td>
<td>0.27</td>
</tr>
<tr>
<td>0.30</td>
<td>0.28</td>
<td>0.32</td>
</tr>
<tr>
<td>0.35</td>
<td>0.33</td>
<td>0.37</td>
</tr>
<tr>
<td>0.40</td>
<td>0.38</td>
<td>0.42</td>
</tr>
<tr>
<td>0.45</td>
<td>0.43</td>
<td>0.47</td>
</tr>
</tbody>
</table>

Female | Male
Moreover, the logistic regression also showed that, on average, households with children in the home are 7 percent less likely to consider pets human, holding all other variables constant (Figure 9). This effect is significant at $\alpha=0.05$. 

Figure 9
Turning to the next research question concerning the influences on perceiving one’s pet as human, on average, individuals who consider pets as family are 21.1 percent more likely to consider pets human, holding all other independent variables constant (Figure 10). This effect is significant at $\alpha=0.001$.

The logistic regression also revealed that, on average, dog-exclusive owners are 5 percent more likely than men to consider pets as human, holding all the other independent variables constant (Figure 11). This effect is significant at $\alpha=0.05$. 
DISCUSSION

The results of these analyses require us to reject the null hypothesis that an individual’s social role as defined by their education, gender and family situation would have no influence on whether they consider their pet to be a family member. Contrary to the null hypothesis, several of the aspects of social role as represented by the independent variables in the model had regression effects that are significant at $p<0.05$. In other words, we are 95% confident that the effects found did not occur by chance.

The alternative hypotheses posit that individuals consider pets as human when they are being used to satisfy a relational deprivation or fulfill relational needs usually served by other humans. Women being more social due to traditionally serving as the social facilitator within the family may be more likely to humanize their pets. Furthermore,
single individuals are more likely than their married peers to satisfy intimate relational needs through their relationships with their pets, for example with dog owners being less lonely than otherwise comparable non-owners (Wood, Giles-Corti, Bulsara, and Bosch. 2007). The absence of children in the home also seems to cause individuals to see pets as human. Viewing pets as members of the family very clearly shows that these pets are being perceived as significant partners in human social networks via the family. In this theory, companionship leads to pets being considered as human.

Another interpretation of this set of results is that individuals who consider their pets human are using them as child substitutes. For women, it can be argued that the socialization of young girls in to a mothering role tends to cause females to look at pets as training for raising children. For married individuals, it can be argued that these individuals are already on the track to having children and do not require a child substitute. For those homes with children, pets more likely serve as training for adulthood and responsibility.

CONCLUSION

The goal of this study was to advance knowledge of human social networks, by exploring how people incorporate pet animals into their networks, as well as how they understand their pet’s role as an independent social actor. I was able to do this by analyzing the data collected in 1997 CBS News/ New York Times Campaign Fundraising/ Movies Poll using key questions asked of pet owners together with other
demographic and household characteristics. Despite only a minority of the survey respondents considering their pets human (26%), we were able to identify six predicting variables: pet type, gender, pet membership in the family education, marital status, presence of children in the home, and educational attainment. This means that people are choosing to consider their pets as humans based upon their social roles and statuses. Multiple research methodologies would benefit this area of study. Further survey research with more precise questions would clarify the logic behind these choices; whereas, in-depth, open-ended interviews could explore the meanings associated with considering one’s pet as human.

These findings question whether social scientists have been accurately measuring social support. For example, one might speculate that the negative effects of social isolation on subjective well-being that are observed in ordinary surveys are actually underestimated because many apparently socially isolated people own pets so their relatively high levels of social support and subjective well-being raise the level for their category as a whole: the differences between socially integrated people and the truly isolated (those lacking family or pet ties) may be even larger than those we already know about.

Another point of interest within this area would be to explore unhealthy human-pet relationships, such as hoarding. It is plausible that individuals with severe social deficiencies that have trouble relating to other humans may have unhealthy relationships with their animals. They may attempt to alleviate their needs for companionship with an overabundance of pets. If a relationship exists between social deficiencies and unhealthy
human-pet relationships, these could be used as additional markers for mental health workers to identify troubled individuals.

Though academia ignores the importance of non-human animals in human social networks, everyday ordinary individuals are continuing to weave them into their social networks as demonstrated by this small study. Until social scientists stop seeing the social world as a human-only sphere, the entirety of our social world will be obscured from view. Sociality is not species specific.
APPENDIX

Figure 2

Education Distribution of Pet Owners
(n=734)

% of Sample

Years of Education

10 12 14 16 18
0.0 9.7 10.0 13.5
10.0 18.0
20.0 25.2
30.0 33.7
40.0
50.0
60.0
70.0
80.0
90.0
100.0

Figure 3

Gender Distribution of Pet Owners (n=734)

% of Sample

Male Female

44.14 55.86
Figure 4

Marital Status Distribution of Pet Owners (n=734)

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>% of Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unmarried (Single, Widowed, Divorced, Separated, DK/NA)</td>
<td>39.51</td>
</tr>
<tr>
<td>Married</td>
<td>60.49</td>
</tr>
</tbody>
</table>

Figure 5

Distribution of Pets Considered Family Members among Pet Owners (n=734)

<table>
<thead>
<tr>
<th>Category</th>
<th>% of Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>84.44</td>
</tr>
<tr>
<td>Not Family</td>
<td>15.56</td>
</tr>
</tbody>
</table>
Figure 12

Table 1: Correlation Matrix of Variables

<table>
<thead>
<tr>
<th></th>
<th>Pet is Person</th>
<th>Dog</th>
<th>Pet is Family</th>
<th>Female</th>
<th>Married</th>
<th>Children in Home</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pet is Person</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dog</td>
<td>0.08</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pet is Family</td>
<td>0.23</td>
<td>0.08</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>0.12</td>
<td>-0.05</td>
<td>0.11</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>-0.13</td>
<td>0.03</td>
<td>-0.03</td>
<td>-0.11</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children in Home</td>
<td>-0.11</td>
<td>-0.02</td>
<td>-0.05</td>
<td>-0.01</td>
<td>0.17</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>-0.09</td>
<td>-0.01</td>
<td>0.00</td>
<td>-0.08</td>
<td>0.09</td>
<td>0.02</td>
<td>1</td>
</tr>
</tbody>
</table>
Table 2: STATA Logistic Regression Output

<table>
<thead>
<tr>
<th>person</th>
<th>Coef.</th>
<th>Std. Err.</th>
<th>z</th>
<th>P&gt;z</th>
<th>95% Conf. Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dog</td>
<td>0.341288</td>
<td>0.177967</td>
<td>1.92</td>
<td>0.055</td>
<td>-0.00752 - 0.690097</td>
</tr>
<tr>
<td>Female</td>
<td>0.437166</td>
<td>0.184563</td>
<td>2.37</td>
<td>0.018</td>
<td>0.075429 - 0.798903</td>
</tr>
<tr>
<td>family1</td>
<td>2.48546</td>
<td>0.519092</td>
<td>4.79</td>
<td>0</td>
<td>1.468059 - 3.502862</td>
</tr>
<tr>
<td>Married</td>
<td>-0.50413</td>
<td>0.180197</td>
<td>-2.8</td>
<td>0.005</td>
<td>-0.85731 - -0.15095</td>
</tr>
<tr>
<td>children1</td>
<td>-0.40055</td>
<td>0.181064</td>
<td>-2.21</td>
<td>0.027</td>
<td>-0.75542 - -0.04567</td>
</tr>
<tr>
<td>education</td>
<td>-0.0788</td>
<td>0.038035</td>
<td>-2.07</td>
<td>0.038</td>
<td>-0.15334 - -0.00425</td>
</tr>
<tr>
<td>_cons</td>
<td>-2.19486</td>
<td>0.742711</td>
<td>-2.96</td>
<td>0.003</td>
<td>-3.65054 - -0.73917</td>
</tr>
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</table>
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