

# What “Price” Means When Buying Food: Insights From a Multisite Qualitative Study With Black Americans

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In recent years, increasing attention has been given to the role that the marketing of high-calorie, low-nutrient foods and beverages has in the development of obesity, especially childhood obesity.<sup>1,2</sup> Marketing is multifaceted, including the types of products available, where they are available, where and how they are promoted, and what they cost (the “marketing mix”).<sup>3</sup> Food marketing variables shape the environments in which food preferences develop and in which consumers make purchasing decisions. These variables must be understood to design policies and programs to facilitate calorically and nutritionally appropriate eating patterns.

Although much of the concern about food marketing has focused on children, evidence suggests that food and beverage marketing practices contribute to the higher-than-average risk of obesity and other diet-related diseases in Black persons at all ages.<sup>4,5</sup> Black persons are more likely than White persons to be exposed to advertising and other promotions for high-calorie, low-nutrient foods and beverages, and less likely to encounter promotions for healthier alternatives.<sup>6–9</sup> In addition, on average, Black neighborhoods have relatively fewer retail food stores that offer a wide variety of foods and relatively more fast-food outlets than other types of restaurants compared with predominantly White neighborhoods.<sup>10–15</sup> A higher percentage of Black than White Americans have incomes near the poverty line<sup>16</sup> and are, therefore, also affected by the disproportionate promotion and availability of high-calorie, low-nutrient foods in lower-income neighborhoods.<sup>10,13,15,17</sup> However, the excess risks of obesity and other diet-related diseases in Black persons are not confined to the lower-income segment of the population.<sup>18–21</sup>

The objective of this study was to explore the role of price in the food purchasing patterns of Black adults and youths. Price is among the strongest, if not the strongest, influences on food purchases (particularly among low-income

**Objectives.** We explored the role of price in the food purchasing patterns of Black adults and youths.

**Methods.** We analyzed qualitative data from interviews and focus groups with socioeconomically diverse, primarily female, Black adults or parents (n = 75) and youths (n = 42) in 4 US cities. Interview protocols were locality specific, but all were designed to elicit broad discussion of food marketing variables. We performed a conventional qualitative content analysis by coding and analyzing data from each site to identify common salient themes.

**Results.** Price emerged as a primary influence on food purchases across all sites. Other value considerations (e.g., convenience, food quality, healthfulness of product, and family preferences) were discussed, providing a more complex picture of how participants considered the price of a product.

**Conclusions.** Food pricing strategies that encourage consumption of healthful foods may have high relevance for Black persons across income or education levels. Accounting for how price intersects with other value considerations may improve the effectiveness of these strategies. (*Am J Public Health.* 2013;103:516–522. doi:10.2105/AJPH.2012.301149)

consumers) and on caloric overconsumption.<sup>22,23</sup> Food price may affect caloric consumption through the types or quantities of foods purchased. For example, people may buy relatively inexpensive snack foods and convenience foods that are high in fat and sugar.<sup>24</sup> They also may feel less guilty about buying unhealthy foods if they are discounted and may eat relatively more of the products acquired at low cost or stockpiled because of quantity discounts.<sup>22,23</sup> Price is mentioned routinely as a major influence on food purchasing decisions by Black consumers and by consumers in general.<sup>22,25–31</sup> However, compared with other aspects of marketing, ways in which the price of products affects diet-related disparities experienced by Black adults and youths have been less well studied.

Although the foods available and marketed in Black neighborhoods are relatively less healthful compared with foods marketed in White neighborhoods, available evidence does not support the hypothesis of systematic differences in food prices between Black and White neighborhoods.<sup>9,32–35</sup> Yet these price comparison studies have not adjusted for

neighborhood differences in income, which would determine what prices residents might consider affordable. Nor have they considered several other factors such as the mix of retail outlets available, availability of time and transportation to shop in other neighborhoods, price discounts, consumer food preferences, or food-specific or more general shopping patterns, all of which might influence what people buy at a given cost.<sup>22,36</sup> This dearth of comprehensive inquiry calls for a deeper understanding of the role of food prices in purchasing behavior among Black consumers, which will inform potential marketing-related strategies for addressing obesity.

## METHODS

We collected qualitative data for this analysis in Baltimore, Maryland; Birmingham, Alabama; Chicago, Illinois; and Durham, North Carolina, between 2008 and 2010 as part of a multisite exploratory study to assess Black participants’ perceptions of their food marketing environments, with a specific emphasis on understanding the role of food marketing

environments in the context of obesity and dietary behaviors. This study reports on secondary analyses that were undertaken specifically to explore the role of food price in food purchasing patterns in interview and focus group transcripts from these 4 sites.

### Participant Recruitment

Participants were recruited by advertisement and through networking with community partners. Investigators in Chicago and Birmingham focused on marketing influences in families with younger children (0–11 years of age). Parents or primary caregivers (all primary caregivers will be referred to as “parents”) with children in this age group were of interest because disparities in obesity develop as early as 2 years of age and continue to widen as young children reach adolescence.<sup>5</sup> In addition, previous studies suggested that parental response to marketing may be influenced by children’s developmental stage.<sup>2</sup> In Baltimore and Durham, preadolescents and adolescents and parents of children in these age groups were the focus of recruitment. Although Baltimore did not require adult participants to be parents, all but 1 of the adults were parents. In Chicago, parents were purposively sampled to be of lower income, whereas in Birmingham, parents were purposively sampled to be of various income levels. Socioeconomic status was not a specific consideration in recruitment in Durham and Baltimore.

### Data Collection and Data Management

Although the exploratory objective was the same at all of the sites, investigators at each site worked with local community partners to develop local sampling and data collection approaches (Table 1). Detailed methods used by these field sites have been described<sup>37,38</sup> or will be reported elsewhere (L. Carter-Edwards, PhD, unpublished data, May 2010; M. Baskin, PhD, unpublished data, May 2010). All interviews, focus groups, and photoelicitation focus groups<sup>39</sup> were audiotaped, transcribed verbatim, checked for accuracy against the original audiofile, and input into NVivo 8 software (QSR International [Americas] Inc, Cambridge, MA) to facilitate analyses. Personal identifiers were removed from all transcripts. Photographs taken for the elicitation groups were reviewed by researchers coding the data

as needed to comprehend transcripts, but the photographs were not otherwise used during the analysis phase.

### Data Analysis

Researchers and staff at the Research, Evaluation, and Dissemination Core of the African American Collaborative Obesity Research Network at the University of Pennsylvania used conventional qualitative content analysis for data analysis. Conventional content analysis is generally used with a study design whose aim is to describe a phenomenon when existing theory or research literature is limited.<sup>40</sup> This method involves “open-coding” of text transcribed from group or individual interviews—that is, reading the transcripts and highlighting (coding or assigning labels to) segments of text that reflect different ideas. These codes are then used to group text segments into higher-level categories that reflect emergent themes.<sup>40</sup>

During the coding process, researchers focused on the analytic objective: to use data across the 4 field sites to understand the role of food price in the food purchasing patterns of a diverse group of Black parents and youths. Each team member first read transcripts in depth from the assigned field site to get a sense of the “whole” of the data and then did open-coding. Site-specific codes were developed, and an overall codebook (a dictionary with a brief definition of each label used) also was developed to allow for codes to apply to more than 1 site. Checks of intercoder consistency were conducted when a minimum of 30% of transcripts had been coded for each site. The NVivo software was used to facilitate the process of grouping data into categories and subcategories and to generate flowcharts of emergent themes and interrelations of themes for each site. Cross-validation of the themes and relations was reached through review and discussion among the respective field site investigative teams and the Research, Evaluation, and Dissemination Core research team. Research, Evaluation, and Dissemination Core researchers and field sites iteratively reread and discussed coded text segments to better understand the common themes from all 4 sites, considering the various protocols used during data collection when interpreting data across sites, leading to further refinement.

## RESULTS

Table 2 provides the sample characteristics at each site to show the diversity of the overall sample and provide context for interpreting the results. Eligibility criteria were such that most adult participants were parents, and in Durham, some were parents of participating children. Most of the adults and at least of 70% of the youth participants were female. The age range of adult participants in Birmingham and Chicago was wider than in Durham and Baltimore. Most adults in Baltimore and Birmingham were college educated, whereas most in Chicago and Durham were not.

### Findings

Common themes relating to the importance of price and other value considerations as influences on food purchases emerged across the 4 sites. Participants described seeking low-priced products to save money, time, and effort, whereas high-priced products were associated with constrained options in neighborhoods and widely advertised brand name products. Many participants described tradeoffs for low-priced foods, including fewer health benefits from such foods and possible poor fit with family preferences. All themes described here resonated across at least 2 sites. Different protocols at each site precluded direct comparisons across sites or the attribution of findings to the specific sample characteristics at a given site.

*Getting low prices.* Participants described the importance of stretching their food dollar, looking for prices described as affordable (i.e., “low prices” and “good prices”). They sought low-priced foods to obtain the quantity and quality of food needed for themselves and their family while staying within budget. Getting low prices was commonly discussed in the context of budgetary constraints for parents in Chicago when describing family food shopping and by both youths and adults in Baltimore when describing youth food shopping. Youths said that they often chose a lower-priced food over a more expensive alternative, without giving much thought at the time of purchase to other considerations. For example, a youth said, “We just kind of like cheaper stuff, like fast food, because it is cheaper.”

In describing how they locate low prices and price promotions (e.g., discounts or deals),

**TABLE 1—Site-Specific Data Collection Objectives and Methods: Baltimore, MD; Birmingham, AL; Chicago, IL; and Durham, NC, 2008–2010**

Study Site	Community Partner(s)	Study Objectives	Type of Qualitative Data Collection
Baltimore	All-girl, public, college preparatory high school	Explore types of food adolescent girls purchase and what influences purchases	3 youth focus groups
		Understand the effects of food marketing environment on African American adolescent girls	3 adult photoelicitation focus groups
			3 youth photoelicitation focus groups
Birmingham	Nonprofit organization comprising 6 African American churches	Learn how food environments influence eating behaviors Understand factors that influence what families eat, where families buy food, and the types of food they buy	25 parent <sup>a</sup> interviews
Chicago	Community health center and community development corporation	Learn how food environments influence eating behaviors Understand factors that influence what families eat, where families buy food, and the types of food they buy	25 parent <sup>a</sup> interviews
Durham	Community recreation center	Identify parents' perspectives of environmental and cultural factors that influence their children's food preferences	1 parent <sup>a</sup> focus group
		Identify behaviors young children use to influence parents' food purchasing behaviors	1 youth focus group
			12 youth interviews 18 parent <sup>a</sup> interviews <sup>b</sup>

<sup>a</sup>Parents include all caregivers, such as biological mothers, biological fathers, and grandparents.

<sup>b</sup>Focus group participants were a subset of those interviewed.

adults or parents in Baltimore and Chicago described viewing advertisements (e.g., television, newspapers, mailers). Parents in Chicago described using supermarket circulars, television advertisements, and other advertisements to find “meal deals.” For example, a participant said of a billboard for a fast-food restaurant in her community, “lets me know if they’ve got something on sale like Big Macs, 2 for \$4, or the breakfast sandwiches, 2 for \$3.” An adult from Baltimore described how advertisements increase low-priced food purchases by community members when commenting on a photograph of a fast-food advertisement (from photoelicitation group): “They would . . . probably go for it, especially when it is not pay week, and you are trying to get fast, inexpensive meals for the family.” When asked whether this low-priced advertisement was a good or bad thing, she noted a good aspect—the advertised food (fried chicken) is a low-cost meal for families—and a bad aspect—the meal might not be the healthiest option.

*The “price” of healthy food.* Participants said that finding foods that offered the low price, the quantity, and the health benefits desired was difficult. For example, a parent from Durham

said: “The truth of the matter is that it is hard for me to buy the kinds of foods that I really do want my son to eat.” Thus, participants described circumstances when low-priced, unhealthy foods were purchased because the monetary cost took precedence. Examples of low-priced, “unhealthy” foods described by participants included snack foods (e.g., chips, candy), fast foods (e.g., burgers, pizza), sugar-sweetened beverages, meal deals (e.g., takeout dinner with sides), and relatively lower-priced versions of items (e.g., white bread vs whole wheat bread). An adult in Baltimore described the lack of nutrition in low-priced foods and said that youths “are not getting a bit of nutrition for their buck, but they are getting full, and they are pleased that for \$3 they could get full.” A youth in Baltimore described how the low cost of unhealthy foods might explain what the school offers their students: “They are kind of forced to sell the things at school because we do not necessarily have the money to have healthier foods, so they feed us pizza and fries every day.”

Parents or adults and youths also described frustration with the higher prices of healthier foods. Healthier foods described by

participants included fruits, vegetables, foods that are not fried, and whole wheat bread. For example, a Birmingham parent described a scenario where she could save \$2 by purchasing a sandwich on white bread rather than whole wheat bread: “You already told us to eat wheat bread because it is healthier, but you are going to charge me more because I want to eat healthier.” One Durham parent explained why she let her kids pick snacks less healthful than fruit: “I have unfortunately relented to it because it’s too big an argument, and with the cost of fruit going the way it’s going, it’s like I just get it.” Perishable healthier foods also were considered costly because of the potential for waste. In the words of another Durham parent, “He’ll ask me to buy fruit. And I’ll buy it, and then it sits. So then I end up throwing it away, or I eat it, and then I won’t buy any more.”

Parents in Birmingham described the healthfulness of foods as more important than obtaining a low price, although some expressed frustration at having to pay a higher price for healthier options. One Birmingham parent said of healthier food: “It is more expensive, but sometimes you have to go that extra mile.”

**TABLE 2—Site-Specific Sample Characteristics: Baltimore, MD; Birmingham, AL; Chicago, IL; and Durham, NC, 2008–2010**

Variable	Youths	Adults
<b>Baltimore</b>		
No.	30	7
Age, y	14–17	31–63
% female	100	100
Economic status	37% received free lunch	Not assessed
Education status	9th–12th grade	14% < college degree
<b>Birmingham<sup>a</sup></b>		
No.	...	25
Age, y	...	18–74
% female	...	92
Economic status	...	28% received public assistance
Education status	...	22% < college degree
<b>Chicago<sup>a</sup></b>		
No.	...	25
Age, y	...	17–59
% female	...	85
Economic status	...	75% received public assistance
Education status	...	91% < college degree
<b>Durham<sup>b</sup></b>		
No.	12	18
Age, y	Not assessed	32–58
% female	Not assessed	81
Economic status	Not assessed	19% received public assistance
Education status	6th–8th grade	88% < college degree
Total sample size, no.	42	75

<sup>a</sup>No youths were interviewed in Chicago and Birmingham.

<sup>b</sup>Demographic surveys in Durham were completed only by parents; data were missing for 2 parents; youth participants were not asked to complete demographic surveys.

*Cost of limited choices.* Parents in Chicago and youths in Baltimore were explicit in asserting that their food environment exposed them to low-quality, unhealthy food at high, unfair prices. This highlighted how neighborhood food availability, in general, can result in limited healthy food options and generally high food prices. Parents in Chicago described their immediate neighborhood (e.g., nearby convenience stores) as overpriced and offering poor-quality foods; for example, “The corner stores are unhealthy. The corner stores are stickups.” Both youths and adults or parents in Baltimore raised concerns about the foods available at school, with a youth saying: “But if this [unhealthy foods] is in the cafeteria . . . you do not really have a choice then.” Baltimore youth participants said that food prices at school were generally high and that foods

purchased at convenience stores offered lower prices but were as unhealthy; they said that foods brought from home offered the greatest health value for the least cost. In Chicago, parents discussed the shopping strategy of going to multiple stores to get the best price for particular products because of the difficulty in obtaining affordable products in their neighborhood. One participant explained: “Their meat might be higher than [supermarket A’s] meat; that’s why I move around and buy it.” The extra effort was discussed as being acceptable when it increased the quality of the product you could purchase and when it helped families to get the most out of their food budget.

*Low-priced foods save you time.* Participants described the attractiveness of low-priced foods in terms of convenience and cost. They

noted that many ready-to-eat foods are offered at a low price and offer time and labor savings compared with foods prepared at home. Parents, particularly in Durham and Birmingham, described the pace of family life as “busy” and said that parents just do not have time to cook as much as they would like. For example, in Birmingham, a parent said, “It’s easier to get the fast food because everybody’s pinched for time.” Another parent in Durham said the following when asked why she has stopped baking: “Because you can buy it for \$5. [Interviewer: It’s easier to buy?] Yeah.” Youths said that they are drawn to low-priced convenience foods, especially when parents are at work, and they need to prepare or order meals on their own. A youth participant in Durham described being at home with only her sister, and after seeing a promotion for low-priced pizza, she “will get stuff from there if it is late and nothing has been cooked or nobody is at home.”

*The pricing and appeal of advertised brands.* Participants across all sites perceived advertised brands to be both enticing and high priced. The appeal was great as a result of advertisements with visual effects, celebrities, and music. However, some parents said that they try to teach their children that advertised brands are not necessarily offering a higher-quality product. For example, a parent in Durham said:

I kept trying to tell them [children] I don’t care how it looks on TV, after they get these wonderful actresses and actors who get on television, and they said they make these things look so great.

Youths described brand preferences; for example, a young person in Baltimore spoke negatively about the taste of store-brand fruit snacks (compared with a national brand), saying: “Because the store brand tastes more like candy, you can taste the syrup.” National brands were perceived as offering foods and beverages at higher prices than comparable nonadvertised options. A Durham parent said that she tells her children “we’ll see” when they request advertised brands, further explaining: “The ‘we’ll see’ is how much it costs to be able to see if we can afford that or not.”

Buying generic or “off-brand” items to save money was discussed often in Durham and highlighted how budgetary considerations interact with family food preferences. Recalling



her daughter's comment during a shopping trip, one mother said: "But my daughter did make a statement the other day when I picked up the [store X brand] Doritos. 'Oh, off brand.' I said, 'Okay, this is we got off-brand money for today.'" Another described how she sometimes might be "generous" and purchase her children the brand-name version of a product, particularly if there is a price promotion, saying: "Every now and then, they might have those on sale, and so we can get the real thing." Youths in Durham did not discuss price as a primary influence on their own food purchases but described a strategy of requesting lower-priced items or items on sale to increase the likelihood that their parents would purchase a requested item.

**Child and family preferences.** Low prices also were intertwined with other considerations for families—mainly, getting food their children prefer, food they believe to be healthy, and food that they can afford or is "priced right." A Durham mother described her approach to food shopping, in which she is responsive to her child's request while setting limits related to price and the healthfulness of foods: "They point to it, and they ask if it's fine for us to put it in the cart. Then we . . . see whether or not it fits the budget and if it's healthy for them." A Birmingham mother asserted that she does not give in to her children's pestering, stating: "As long as I'm the mother and I'm buying the food, then they going to have to eat what I bring into the house." By contrast, others spoke of issues of hunger in their past and emphasized the importance of keeping children fed. In the words of one Chicago parent: "Let them eat, let them pig out. . . . I don't never want to see another kid starve."

### Summary of Emergent Themes

Despite the clear importance of obtaining a low price, the weighing of price against other considerations emerged. Healthfulness of foods held importance, although many said that obtaining low prices took precedence. Participants expressed frustration with the unhealthful nature of many low-cost, convenient foods. Several other considerations, mainly convenience (e.g., time-saving, labor-saving), meeting family and child preferences, and obtaining preferred brands, also were influential when determining which food to purchase. Purchasing decisions were not simply a matter of caring or

not caring about the health effects of food or surrendering to children's preferences without consideration of other perceived costs. Rather, participants cited the influence of food prices when making purchases and the multidimensional nature of food price considerations (i.e., the true "price" from a broader perspective).

### DISCUSSION

The finding that food prices were described as a primary or an important determinant of food purchases by Black adults and youths is congruent with published evidence.<sup>22,25–31,41</sup> We extend previous research by showing ways in which study participants filtered price considerations in light of other aspects of perceived value, suggesting that price is viewed as multidimensional and should be conceptualized more comprehensively than in terms of monetary cost alone. Also, although the importance of price when resources are constrained is well understood,<sup>25,28</sup> the salience of price was observed even among Black participants with diverse income and education levels. This suggests that strategies to improve relative pricing of more and less healthful foods may have potential for addressing obesity and other diet-related health disparities among Black individuals broadly.

Research in marketing supports the notion of perceived value, where value is based on consumer "perceptions of what is received and what is given"<sup>42</sup> and where a particular aspect of value can be understood fully only in light of the other aspects.<sup>43</sup> Thus, these participants expressed a complex view of "price" in which the monetary cost was filtered on the basis of these other value considerations. Assessing "price" inclusive of a broader range of perceived value considerations may be a superior conceptual tool. Important aspects of perceived value for these study participants included convenience—both ease of access and time- or labor-saving elements—as well as quality, healthfulness, and fit with family preferences. We can infer that price influenced where people shopped and whether they had options and that where they shopped influenced what they were willing to pay or viewed as a good price. High neighborhood prices were viewed as unfair in terms of value for money and did not compete well with the low prices available

at more distant stores, but traveling to distant stores required extra time and effort. The contrasting comments from parents with apparently different feeding-related parenting philosophies or styles<sup>44–46</sup> provided insights into different ways these value considerations might operate according to family characteristics. Low prices were paid out of necessity when monetary cost issues superseded other aspects of perceived value.

Our findings also resonate with objective evidence that food prices influence consumption of obesity-promoting foods and that Black persons may have a greater difficulty logistically in achieving a health-protective eating pattern.<sup>24,30,47,48</sup> This is partly because of the low cost of many high-calorie packaged or ready-to-eat foods relative to healthier alternatives<sup>47,49</sup> but also reflects the lack of supermarkets or large grocery stores relative to fast-food restaurants in Black communities<sup>9,11,13</sup> and high exposure to promotions for unhealthy foods (i.e., ethnically targeted advertising).<sup>6,8,9</sup> The effect of price in terms of monetary cost must be considered along with food availability and promotion aspects of the marketing mix experienced by Black Americans. This was implied by the several studies that found the relations between food prices, race/ethnicity, and food purchasing patterns to be complex<sup>32–35,50,51</sup> (i.e., not a matter of systematic differentials in prices charged according to race/ethnicity as such). Black consumers may be more likely to purchase less healthful foods by default unless they have the motivation, time, and resources to shop around both within and outside of their neighborhoods for healthy foods they view as affordable. Being drawn to good deals by advertisements may contribute to this scenario, given that price promotions are increasingly used in food retailing to draw shoppers to certain retail outlets and products<sup>22,23,52,53</sup> and may be more prevalent in Black communities.<sup>54</sup>

Strengths of this study included the socioeconomic, age, and geographic diversity in the sample and the ability to cross-validate themes emerging separately across the 4 sites. Limitations included the reliance on convenience samples and the differences in interview protocols that made it impossible to determine whether themes elicited at only a single site

might have been relevant to other sites. Also, having mostly female participants and minimal demographic information limited the understanding of the potential for gender and other demographic variation. Themes related to ethnicity-specific sociocultural contexts for food purchases, which would be of interest, did not emerge as explicit within our analysis, which might reflect a limitation of the protocols used. Future research could expand on these findings to explore the effect of the wider socioenvironmental contexts, including cultural contexts, in which Black persons make their food purchasing decisions.<sup>55</sup>

The policy implications of this study relate to the persistent finding that Black persons have poorer dietary quality and more obesity and other diet-related diseases compared with White persons.<sup>4,20,21,56</sup> Price-related interventions are undoubtedly an important and essential strategy for addressing these disparities. Black participants of various income or education levels believed that the affordability of food (i.e., getting the quantity and quality desired at an acceptable price) was a key factor when making purchasing decisions but integrated other value considerations beyond monetary cost when choosing foods and beverages. Taken together, these findings suggest that the price-related interventions oriented to Black persons may be most effective when informed by evidence on other important perceptions of value that influence their food purchasing behavior. ■

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### Contributors

K. I. DiSantis led the multisite data analysis, with S. A. Grier and S. K. Kumanyika contributing to the interpretation of the data. K. I. DiSantis, S. A. Grier, and S. K. Kumanyika led the writing of the article. A. Odoms-Young, M. L. Baskin, L. Carter-Edwards, and D. R. Young were the lead investigators at their respective sites and assisted with the data analysis and writing of the article. S. A. Grier, V. Lassiter, and S. K. Kumanyika consulted with sites on the design and implementation of their respective studies. V. Lassiter assisted with the data analysis and writing of the article.

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### Human Participant Protection

The study was approved by the institutional review boards of the University of Maryland, University of Illinois at Chicago, University of Alabama at Birmingham, Duke University, and University of Pennsylvania.

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