

## Perodua Bezza as a Mother-Friendly Car: Perspectives of Malaysian Women Drivers

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### ABSTRACT

Women represent an increasingly important segment of automotive users, yet their needs and preferences remain insufficiently considered in car design. This study explores Malaysian women drivers' perceptions of five local car models (Perodua Bezza, Myvi, Axia, Ativa, and Proton Saga) selected based on popularity, sales, and price up to 2023, to identify the most mother-friendly model and the factors influencing their preferences. An online survey using Google Forms was conducted with 106 Malaysian women drivers. Data were analysed using frequencies and percentages to identify patterns and compare the selected models. The respondents were predominantly mothers (70%), while 39% were aged 31–40, 46% were primarily workers, 33% had 16–20 years of driving experience, and 42% had used their cars for more than ten years. Affordability was the most influential purchase factor (59%), followed by comfort (46%), mother-friendliness (30%), size (27%), and child-friendliness (19%). Although Axia was most strongly associated with affordability (64%) and Ativa with comfort (54%), Bezza demonstrated the most consistent performance. It recorded the highest agreement as a mother-friendly car (69%), perceived mother-friendliness (42%), child-friendliness (28%), and mother-friendly rating (73%). The findings indicate that women drivers' perceptions of suitable local cars involve interconnected economic, practical, comfort, and family-oriented considerations, highlighting the importance of incorporating women drivers' everyday experiences and needs into user-centred automotive design within the Malaysian context.

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## **1. Introduction**

Women have become increasingly important automotive users and consumers due to changing social patterns, increased workforce participation, financial independence, and family responsibilities (Parkin, 2017; Tu et al., 2018). Their vehicle needs and preferences may vary according to age, occupation, family responsibilities, and patterns of car use (Tu et al., 2018). Motherhood is particularly relevant, as women with children may rely on cars to manage work, childcare, shopping, and other daily activities (Maciejewska & Miralles-Guasch, 2020). These differences highlight the importance of considering gender and diverse user characteristics when developing products and mobility solutions (Schiebinger et al., 2023).

In Malaysia, national manufacturers such as Perodua and Proton continue to play an important role in the automotive market (Anazawa, 2021). As cars support not only transportation but also various everyday activities (Rosli et al., 2014), understanding how Malaysian women evaluate local cars can provide useful insights into their practical and family-related needs. Therefore, this study examines Malaysian women drivers' perceptions of five selected local car models (Perodua Bezza, Myvi, Axia, Ativa, and Proton Saga) and the factors influencing their preferences, with particular attention to identifying the model perceived as the most mother-friendly.

### **1.1. Research Objectives**

This study aims to explore Malaysian women drivers' perceptions and preferences towards selected Malaysian local car models based on popularity, sales, and price. Specifically, the study seeks to identify the factors influencing their car preferences and determine which of the selected models is perceived as the most mother-friendly car from their perspectives.

## **2. Literature Review**

Women drivers represent a diverse user group whose vehicle requirements may be influenced by physical characteristics, employment, family responsibilities, lifestyle, and patterns of car use. Their needs are therefore not uniform and may differ according to age, occupation, family status, and lifestyle (Tu et al., 2018). Motherhood is particularly relevant to car use, as women with children often combine employment, childcare, shopping, and household responsibilities. This can increase the importance of flexibility and convenience in their daily mobility (Maciejewska & Miralles-Guasch, 2020). These patterns suggest that a suitable car for women, particularly mothers, should support not only transportation but also everyday family activities.

In Malaysia, the automotive industry has continued to evolve through the development of national manufacturers and changing technologies and market demands (Anazawa, 2021). Consumer preferences are particularly important in this context because vehicle purchasing decisions involve different economic and practical considerations. Wun (2021), in examining consumer purchasing behaviour towards locally manufactured Proton and Perodua vehicles, highlights the importance of understanding the factors that influence Malaysian consumers' vehicle choices.

Women's car preferences may also involve practical characteristics of the car. Previous research has identified storage, safety, ease of operation, and functionality as important

considerations for women drivers (Tu et al., 2018). Other practical aspects, including versatility, visibility, and convenience, may also influence vehicle choice (Zhan & Vrkljan, 2011). Financial considerations are equally important because purchasing and owning a car represents a significant household expenditure, while the car itself supports work, shopping, childcare, and other daily responsibilities (Maciejewska & Miralles-Guasch, 2020; Tu et al., 2018).

From a user-centred design perspective, understanding these preferences requires attention to users' characteristics, experiences, and actual interactions with vehicles. Recent gender-oriented research also emphasises the importance of considering sex and gender differences in developing more inclusive design and engineering solutions (Schiebinger et al., 2023). Therefore, examining Malaysian women drivers' perceptions of local cars can provide further insight into how practical, economic, and family-related characteristics influence their car preferences and perceptions of mother-friendliness.

### **3. Method**

This study employed an exploratory survey approach to investigate Malaysian women drivers' perceptions and preferences regarding five selected Malaysian local car models (Perodua Bezza, Myvi, Axia, Ativa, and Proton Saga) chosen based on popularity, sales, and price up to 2023 to identify the most mother-friendly local car from their perspectives. Data were collected through an online questionnaire administered using Google Forms. A total of 113 responses were received. After data screening, 106 valid questionnaires were retained for the final analysis. The questionnaire collected information on respondents' demographic and driving profiles, car-purchasing considerations, and perceptions of the selected models.

The five selected Malaysian local car models were evaluated using closed-ended questions and a five-point Likert scale ranging from strongly disagree to strongly agree. Respondents evaluated the models based on five main characteristics: affordability, comfort, mother-friendliness, child-friendliness, and suitability of car size. They were also asked whether each model could be considered mother-friendly and to rate each model overall and specifically in terms of mother-friendliness using a five-point rating scale ranging from 1 (lowest) to 5 (highest).

The collected data were analysed descriptively using frequencies and percentages to identify patterns in respondents' perceptions and compare the five selected local car models. For the overall and mother-friendly evaluations, ratings of 4 and 5 were combined to represent positive ratings. The analysis was used to identify the factors influencing women drivers' preferences and determine which selected local car demonstrated the strongest overall perception of mother-friendliness.

### **4. Results**

#### **4.1. Respondents' Demographic and Driving Profile**

As shown in Table 1, the sample consisted of 70% mothers, with 39% aged 31–40 years and 46% primarily workers. Regarding driving and car-use experience, 33% had 16–20 years of driving experience, while 42% had used their cars for more than 10 years.

Table 1: Respondents' Demographic and Driving Profile

| Characteristic      | Category           | Percentage (%) |
|---------------------|--------------------|----------------|
| Family status       | Mothers            | 70             |
| Age                 | 31–40 years        | 39             |
| Primary occupation  | Workers            | 46             |
| Driving experience  | 16–20 years        | 33             |
| Duration of car use | More than 10 years | 42             |

#### 4.2. Perception of Local Cars as Mother-Friendly

Respondents were asked whether they agreed that each selected local car model could be considered mother-friendly. The results showed generally positive perceptions across all five models. Bezza recorded the highest agreement (69%), followed by Myvi (66%), Ativa (61%), Saga (59%), and Axia (52%). Thus, Bezza and Myvi received the strongest positive perceptions of mother-friendliness among the selected models.

#### 4.3. Factors Influencing Car Purchase

Respondents were also asked about the factors influencing their car purchase. Affordability was the most frequently identified factor (59%), followed by comfort (46%), mother-friendliness (30%), size (27%), and child-friendliness (19%), as indicated in Table 2. These results indicate that economic and practical considerations, particularly affordability and comfort, played an important role in respondents' car preferences.

Table 2. Factors Influencing Car Purchase

| Factor                  | Percentage (%) |
|-------------------------|----------------|
| Affordability           | 59             |
| Comfort                 | 46             |
| Mother-friendliness     | 30             |
| Suitability of car Size | 27             |
| Child-friendliness      | 19             |

#### 4.4. Perceived Characteristics of Selected Local Car Models

Respondents identified five characteristics associated with the selected local car models. As presented in Table 3, for affordability, Axia recorded the highest percentage (64%), followed by Bezza (55%), Saga (54%), Myvi (50%), and Ativa (31%). For comfort, Ativa recorded the highest percentage (54%), followed by Bezza (48%), Myvi (47%), Saga

(39%), and Axia (24%). Regarding mother-friendliness, Bezza recorded the highest percentage (42%), followed by Ativa (41%), Myvi (39%), Saga (38%), and Axia (37%). For child-friendliness, Bezza recorded the highest percentage (28%), followed by Myvi (25%), while Axia, Saga, and Ativa each recorded 23%. Regarding car size, Bezza and Myvi recorded the highest percentage (28%), followed by Ativa (27%), Axia (23%), and Saga (22%).

Table 3. Perceived Characteristics of Selected Local Car Models

| Model        | Affordability | Comfort    | Mother-friendliness | Child-friendliness | Size       |
|--------------|---------------|------------|---------------------|--------------------|------------|
| <b>Bezza</b> | 55%           | 48%        | <b>42%</b>          | <b>28%</b>         | <b>28%</b> |
| <b>Myvi</b>  | 50%           | 47%        | 39%                 | 25%                | <b>28%</b> |
| <b>Ativa</b> | 31%           | <b>54%</b> | 41%                 | 23%                | 27%        |
| <b>Saga</b>  | 54%           | 39%        | 38%                 | 23%                | 22%        |
| <b>Axia</b>  | <b>64%</b>    | 24%        | 37%                 | 23%                | 23%        |

#### 4.5. Overall Rating of the Selected Car Models

When respondents rated the five models on a scale from 1 (lowest) to 5 (highest), Table 4 shows that Myvi and Bezza received the highest proportion of ratings at levels 4 and 5, at 71%, followed by Ativa at 70%, Saga at 60%, while Axia received 57% of ratings.

These results indicate generally favourable evaluations of the selected Malaysian local cars, with Myvi, Bezza, and Ativa receiving particularly strong overall ratings from the women drivers.

##### 4.5.1. Rating of Local Car Models as Mother-Friendly Cars

As presented in Table 4, respondents subsequently rated each model specifically according to its perceived mother-friendliness. Bezza received the highest combined rating of 4 and 5 at 73%, followed by Myvi at 69%, followed by Ativa and Saga, both at 68%, and Axia at 64%.

Table 4. Overall and Mother-Friendly Evaluation of Selected Models

| Model        | Agreement as Mother-Friendly | Overall Rating (4-5) | Mother-Friendly Rating (4-5) |
|--------------|------------------------------|----------------------|------------------------------|
| <b>Bezza</b> | <b>69%</b>                   | <b>71%</b>           | <b>73%</b>                   |
| <b>Myvi</b>  | 66%                          | <b>71%</b>           | 69%                          |

|              |     |     |     |
|--------------|-----|-----|-----|
| <b>Ativa</b> | 61% | 70% | 68% |
| <b>Saga</b>  | 59% | 60% | 68% |
| <b>Axia</b>  | 52% | 57% | 64% |

#### 4.6. Summary of Survey Findings

Overall, Bezza demonstrated the strongest mother-friendly performance across the survey measures. It recorded the highest agreement as a mother-friendly car (69%), the highest perceived mother-friendliness (42%) and child-friendliness (28%), and shared the highest perceived suitability of car size with Myvi (28%). Bezza also received one of the highest overall ratings (71%) and the highest mother-friendly rating (73%).

Although individual models performed strongly in particular characteristics, such as Axia for affordability (64%) and Ativa for comfort (54%), Bezza showed consistently strong results across affordability, comfort, mother-friendliness, child-friendliness, size, overall rating, and mother-friendly rating. These findings identify the Perodua Bezza as the most mother-friendly local car, from the respondents' perspective, among the five selected models.

#### 4.6. Comparative Analysis of the Five Selected Malaysian Local Cars

To provide additional context for the survey findings, Table 5 compares the five selected Malaysian local cars using 2023 sales information and Malaysian automotive reviews and platforms. The comparison considers car segment, units sold, price range, basic features, reviewers' assessments, and key model strengths.

Table 5. Comparative Analysis of Five Selected Best-Selling Malaysian Local Cars (2023) Based on Malaysian Automotive Reviews and Platforms

| Rank        | Perodua Bezza                                                                     | Perodua Myvi                                                                      | Perodua Axia                                                                       | Proton Saga                                                                         | Perodua Ativa                                                                       |
|-------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Exterior    |  |  |  |  |  |
| Interior    |  |  |  |  |  |
| Description | Segment                                                                           |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
|             | A-Sedan                                                                           | B-Hatchback                                                                       | A-Compact Hatchback                                                                | A-Sedan                                                                             | B- Compact SUV                                                                      |
|             | Units Sold                                                                        |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
|             | 56,735                                                                            | 45,014                                                                            | 44,722                                                                             | 44,696                                                                              | 35,542                                                                              |
|             | Price Range                                                                       |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
|             | 34,580 (RM)–<br>49,980 (RM)                                                       | 46,500 (RM) –<br>59,900 (RM)                                                      | 24,090 (RM)–<br>43,190 (RM)                                                        | 34,800 (RM)–<br>44,800 (RM)                                                         | RM62,500–RM73,400                                                                   |
| Features    |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |



|                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                  |                                                                                                                                          |                                                                                                                            |                                                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5-seater<br>6 colours<br>4 variants<br>Manual or automatic options.                                                                                                                                                                                                                                                                                                                                      | 5-seater<br>5 colours<br>5 variants<br>2 engines, CVT                                                                                                            | A 5-seater<br>4 colours<br>6 variants<br>Manual or automatic options                                                                     | A 5-seater<br>4 variants<br>5 colours<br>Manual or automatic options                                                       | 5-seater<br>3 variants<br>3-cylinder engine; D-CVT automatic transmission                                                                                                                        |
| <b>Reviewers' Verdict Summary</b>                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                  |                                                                                                                                          |                                                                                                                            |                                                                                                                                                                                                  |
| A highly practical, low-risk purchase that prioritises utility and safety over cutting-edge driving dynamics.                                                                                                                                                                                                                                                                                            | A luxury-spec hatchback that offers incredible safety tech for its size, though the price tag remains a point of debate for traditional budget-conscious buyers. | Sophisticated city car for those who prioritise safety and tech over raw engine power or budget, no longer seen as a true budget option. | Though older and less fuel-efficient than competitors, it is valued for its great ride and handling with sturdy Aisin 4AT. | A well-equipped compact SUV offering strong safety technology, good visibility, an elevated driving position, & practical urban usability, although priced higher than Perodua's smaller models. |
| <b>Key Model Strengths</b>                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                  |                                                                                                                                          |                                                                                                                            |                                                                                                                                                                                                  |
| Popular & affordable, fuel efficiency, & large boot space.<br>Practical cabin, suitable for daily commuting and family use.                                                                                                                                                                                                                                                                              | Popular hatchback, modern features.<br>Manoeuvrability, but with a smaller luggage capacity than a sedan.                                                        | Entry-level affordability, compact size.<br>Easy urban use, but limited cabin and luggage capacity.                                      | Affordable sedan, conventional practicality.<br>Similar sedan layout to Bezza, but lower local market demand than Bezza.   | Compact SUV practicality<br>Strong safety & driver-assistance features<br>Elevated driving position<br>For urban & family use.                                                                   |
| <b>Note:</b> The comparative information was compiled from Malaysian automotive reviews, platforms, and market reports published primarily in 2023 (Carlist.my, 2023; Halid, 2023; Lye, 2023; Paultan.org, 2023; PCauto, 2023; Tan, 2023; Alexlovesmac, 2024/ Hafiz Car Dealer, 2023). Sales and market-position information was supplemented by SinarDaily (2024) and relevant vehicle review materials |                                                                                                                                                                  |                                                                                                                                          |                                                                                                                            |                                                                                                                                                                                                  |



## 5. Discussion

### 5.1. Respondents' Characteristics, Car Use, and Driving Experience

The respondents' demographic characteristics provide important context for understanding their preferences. With 70% of respondents being mothers, 39% aged 31–40 years, and 46% primarily workers, the sample represents women who may use cars to manage overlapping work, household, and family responsibilities. Previous research similarly found that motherhood can increase women's dependence on cars, particularly when managing childcare, employment, shopping, and other daily activities, where flexibility and shorter travel times are important (Maciejewska & Miralles-Guasch, 2020).

The respondents also had substantial driving and car-use experience. 33% had 16–20 years of driving experience, while 42% had used their cars for more than ten years. Their evaluations can therefore be understood within the context of accumulated experience with vehicles. This is consistent with the user-experience perspective, in which perceptions of a product are influenced by prior experience, abilities, personal characteristics, and context of use (Quiñones et al., 2018). User-centred design similarly emphasises understanding users' actual interactions, expectations, and values when developing products that respond to their needs (Kamp, 2012).

### 5.2. Factors Influencing Women's Car Preferences

The findings show that Malaysian women drivers' perceptions and preferences are shaped by a combination of economic, practical, comfort, and family-related considerations. Affordability was the most influential purchase factor (59%), followed by comfort (46%), mother-friendliness (30%), suitability of car size (27%), and child-friendliness (19%). This multidimensional pattern is consistent with Malaysian research showing that purchasing decisions for locally manufactured Proton and Perodua vehicles are influenced by several consumer considerations (Wun, 2021). Previous research has also shown that women consider value for money and family-related needs, together with practical aspects such as storage, safety, ease of operation, and functionality (Tu et al., 2018). The importance of affordability also reflects the financial significance of purchasing and owning a car as a long-term household expense (Maciejewska & Miralles-Guasch, 2020; Tu et al., 2018).

### 5.3. Comparison of Selected Malaysian Local Cars

The comparison of the five models shows that no single car performed best in every characteristic. Axia was most strongly associated with affordability (64%), while Ativa received the highest percentage for comfort (54%). Bezza, however, performed consistently across several characteristics, including affordability (55%), comfort (48%), mother-friendliness (42%), child-friendliness (28%), and suitability of car size (28%).

These results indicate that women's car preferences are multidimensional rather than based on a single characteristic. Tu et al. (2018) found that women consider functionality, storage, safety, and ease of operation, while Zhan and Vrkljan (2011) identified versatility, visibility, and convenience as important considerations. This also supports the importance of considering gender together with different social and individual characteristics rather than treating women drivers as a uniform group (Schiebinger et al., 2023). Overall, the findings suggest that women drivers may evaluate a suitable car based on a combination of practical characteristics rather than one feature alone.

Mother-friendliness provides a clear example of this pattern. Bezza recorded the highest agreement as a mother-friendly car (69%) and the highest combined mother-friendly rating of 4 and 5 (73%). It also recorded the highest perceived mother-friendliness (42%) and child-friendliness (28%). These findings are relevant to research showing that having children can influence women's mobility requirements because mothers often combine childcare with shopping, household activities, and employment (Maciejewska & Miralles-Guasch, 2020). Tu et al. (2018) similarly highlighted women's attention to car practicality and functionality.

The overall ratings further support this interpretation. Myvi and Bezza each received 71% of ratings at levels 4 and 5, closely followed by Ativa at 70%, compared with Saga at 60% and Axia at 57%. However, when the cars were evaluated specifically for mother-friendliness, Bezza ranked highest at 73%, followed by Myvi (69%), Ativa and Saga (68%), and Axia (64%). This distinction suggests that a car receiving a high overall rating may not necessarily be perceived as equally suitable for the specific needs of mothers.

#### 5.4. Perodua Bezza: Mother-Friendliness and Market Leadership

Although Axia was more strongly associated with affordability and Ativa with comfort, Bezza demonstrated the most consistent performance across the factors considered by the respondents. Its combination of affordability, comfort, suitable car size, mother-friendliness, and child-friendliness, together with its strong overall and mother-friendly ratings, suggests that women drivers evaluate a suitable local car through a combination of practical and family-oriented characteristics.

The survey findings are also consistent with Bezza's strong position in the Malaysian automotive market. For instance, in 2022, the Bezza achieved remarkable sales, with 66,600 units sold, reflecting a 55% increase; this achievement secured its rank as the sixth best-selling car globally in 2021 (CY Foong, 2023). Additionally, in 2023, the Perodua Bezza became Malaysia's top-selling car, according to the Jabatan Pengangkutan Jalan Malaysia (JPJ) (Sinardaily, 2024), as well as various digital platforms and local news outlets like PaulTan (2024) and Bfmradio (2024).

As shown in Figure 2, in 2023, the Perodua Bezza also claimed the title of "Malaysia's King of the Road," taking it from the Myvi, which had held the title for five consecutive years, as shown in Figure 2. The Bezza ranked first in Malaysia with 56,735 registrations, significantly outpacing the Perodua Myvi, which ranked second with 45,014 registrations (Yu Ang, 2023).

The Bezza's market leadership has continued beyond the period examined in this study. It remained Malaysia's best-selling car in 2023, 2024, and 2025 (Gasnier, 2026) and

continued to lead year-to-date sales through mid-2026 (PaulTan, 2026). This sustained market performance provides useful external context for the respondents' positive evaluation of the Bezza, although market sales should not be interpreted as direct evidence of mother-friendliness.

Figure 1. Perodua Bezza 2023 (Source: Perodua)



Figure 2. Myvi Is No Longer the King (Source: BFM Radio, 2024)



## 5.5. Implications for User-Centred Car Design

The findings highlight the importance of a user-centred approach to automotive design that considers women's everyday experiences and their diverse social and demographic circumstances rather than treating female drivers as a uniform group. The combination of affordability, comfort, suitable car size, mother-friendliness, and child-friendliness

found in this study suggests that vehicle suitability is influenced by several interconnected needs.

For Malaysian automotive manufacturers, these findings indicate the value of considering women's practical and family-oriented requirements when developing future vehicles. In particular, understanding how mothers use their cars for work, childcare, shopping, and other daily activities can help inform vehicle and interior design decisions that better respond to users' needs, preferences, characteristics, and abilities.

## **6. Conclusion**

This study examined Malaysian women drivers' perceptions and preferences towards five selected local car models (Perodua Bezza, Myvi, Axia, Atila, and Proton Saga) chosen based on popularity, sales, and price. The study aimed to identify the most mother-friendly local car from the respondents' perspectives and the factors influencing their preferences. The findings show that car preferences are influenced by a combination of economic, practical, comfort, and family-related considerations, with affordability and comfort emerging as the most influential purchase factors. Although Axia was most strongly associated with affordability and Atila with comfort, Bezza demonstrated the most consistent performance across the evaluated characteristics. It recorded the highest agreement as a mother-friendly car, the highest perceived mother-friendliness and child-friendliness, and the highest mother-friendly rating. Therefore, among the five selected models, Bezza was perceived as the most mother-friendly car by the respondents.

The findings also demonstrate that women drivers should not be considered a homogeneous user group, as their car preferences may be influenced by everyday mobility, employment, motherhood, and family responsibilities. This highlights the importance of a user-centred approach and encourages Malaysian automotive manufacturers to consider women drivers' practical and family-oriented requirements when developing future vehicles. Further research could involve a larger and more diverse sample and examine specific car interior design features that respond to the needs and preferences of mother drivers. As an exploratory study, these findings provided an important foundation for the subsequent PhD research by guiding a more in-depth investigation of women drivers' needs and preferences towards the development of a user perception framework for car interior design within the Malaysian automotive context.

## **Ethics Approval and Consent to Participate**

This study followed ethical standards to protect participants' rights and confidentiality. Participation was voluntary, and participants provided informed consent before completing the questionnaire. All responses were kept confidential and used solely for research purposes.

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## Conflict of Interest

The authors declare no conflict of interest.

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