

Appendix for The Mobile Observation of Advertising Toolkit

1 Overview

This Appendix is a companion for the article *The Mobile Observation of Advertising Toolkit: A Tool for Understanding Ephemeral and Sequenced Social Media Data* by Abdul Obeid, Daniel Angus, Dang Khuong Tran, Lauren Hayden, Nicholas Carah, Khanh Luong, and Giselle Newton.

The Mobile Observation Ad Toolkit (MOAT) was developed by the Australian Internet Observatory in partnership with the ARC Centre of Excellence for Automated Decision-Making + Society (ADM+S).

2 Appendix A: Advertisement formats supported by MOAT

2.1 YouTube

PRODUCT_FEED_BASED The PRODUCT_FEED_BASED ad appears on most scrollable views, when the preceding video contains a product or set of products indexed by YouTube. It features a carousel of cards, each corresponding to a product, and the term ‘product(s) in this video’.

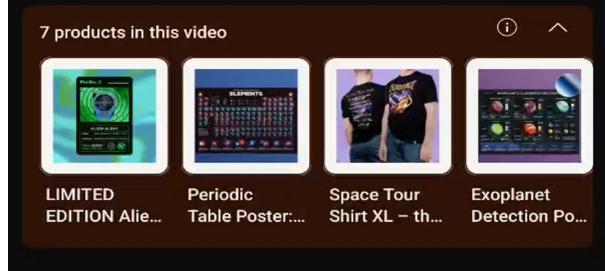


Figure 1: An example of a YouTube PRODUCT_FEED_BASED Ad

APP_FEED_BASED The APP_FEED_BASED ad appears on scrollable views, most often when accessed via the categories of the ‘Home’ tab or during app-related searches. It features an app icon, an app description, a download button, and a ‘Sponsored’ term.

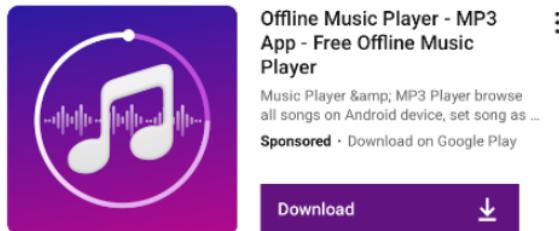


Figure 2: An example of a YouTube APP_FEED_BASED Ad

GENERAL_FEED_BASED The GENERAL_FEED_BASED ad appears on most scrollable views. It features image content above a description and a ‘Sponsored’ term.

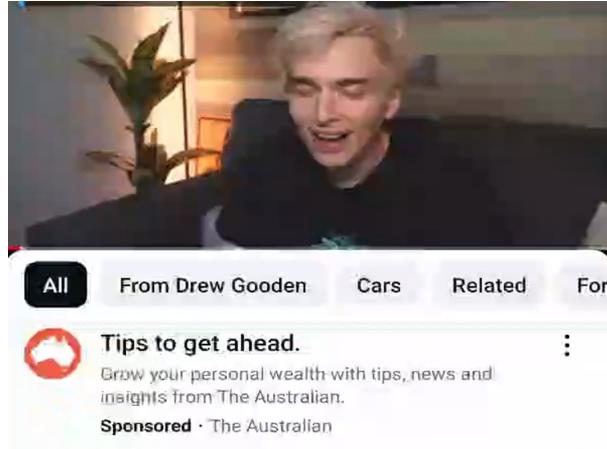


Figure 3: An example of a YouTube GENERAL_FEED_BASED Ad

PREVIEW_LANDSCAPE_BASED The PREVIEW_LANDSCAPE_BASED ad appears prior to watching monetized videos and may not display depending on the interval since the last ad of this type. It is identical to the PREVIEW_PORTRAIT_BASED ad type but lacks UI elements in landscape orientation. It retains a ‘Sponsored’ term and may feature a ‘Visit Advertiser’ term or toggleable side panel.

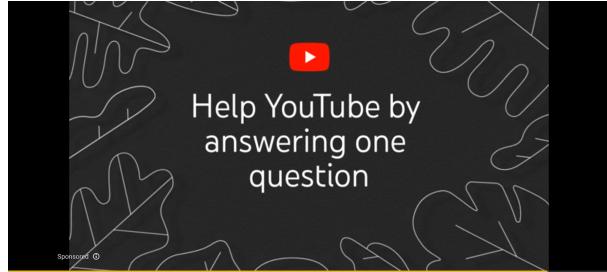


Figure 4: An example of a YouTube PREVIEW_LANDSCAPE_BASED Ad

PREVIEW_PORTRAIT_BASED The PREVIEW_PORTRAIT_BASED ad appears prior to watching monetized videos and may not display depending on the time interval since the last similar ad. It features UI elements below the video, a ‘Sponsored’ term (displayed both within and below the video), a call-to-action button, and an advertiser description.



Figure 5: An example of a YouTube PREVIEW_PORTRAIT_BASED Ad

REEL_BASED The REEL_BASED ad appears intermittently when accessing the ‘Shorts’ or ‘Reels’ tab. It features a ‘Sponsored’ term and engagement buttons overlaid on the video content.



Figure 6: An example of a YouTube REEL_BASED Ad

2.2 TikTok

THUMBNAIL The THUMBNAIL ad appears in the scrollable view of results when running a query in the Discover tab. It features a ‘Sponsored’, ‘Paid Partnership’, or ‘Promotional Content’ term above image or video content, contained in a thumbnail above a description.

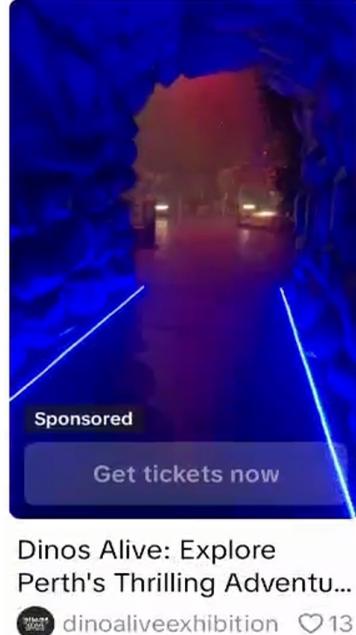


Figure 7: An example of a TikTok THUMBNAIL Ad

REEL_FROM_SEARCH The REEL_FROM_SEARCH ad appears when accessing reels via the app’s search functionality. It features a ‘Sponsored’, ‘Paid Partnership’, or ‘Promotional Content’ term and engagement buttons above video content.

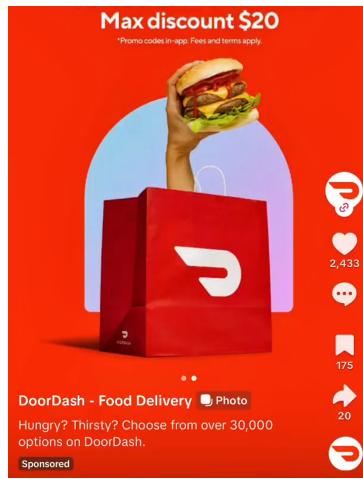


Figure 8: An example of a TikTok REEL_FROM_SEARCH Ad

REEL_FROM_HOME The REEL_FROM_HOME ad appears when accessing reels via the app's Home tab. It features a 'Sponsored', 'Paid Partnership', or 'Promotional Content' term and engagement buttons above video content.



Figure 9: An example of a TikTok REEL_FROM_HOME Ad

2.3 Instagram

REEL_BASED The REEL_BASED ad appears when accessing reels via the app's Reel tab. It features a 'Sponsored' or 'Paid Partnership' term and engagement buttons above video content.



Figure 10: An example of an Instagram REEL_BASED Ad

FEED_BASED The FEED_BASED ad appears in the Home tab. It features an advertiser name and the 'Sponsored' term above image content and a description.



Figure 11: An example of an Instagram FEED_BASED Ad

STORY_BASED The STORY_BASED ad appears intermittently when accessing the ‘Stories’ feature. It features a ‘Sponsored’ term and a call-to-action above either image or video content.



Figure 12: An example of an Instagram STORY_BASED Ad

2.4 Facebook

REEL_FOOTER_BASED The REEL_FOOTER_BASED ad appears intermittently in the Reels tab. It may not appear for most videos and is restricted to the footer of the page. It features a ‘Sponsored’ term and a description beside image content.

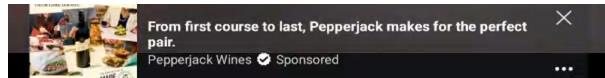


Figure 13: An example of a Facebook REEL_FOOTER_BASED Ad

REEL_BASED The REEL_BASED ad appears intermittently in the Reels tab. It features a ‘Sponsored’ term and engagement buttons above video content.



Figure 14: An example of a Facebook REEL_BASED Ad

MARKETPLACE_BASED The MARKETPLACE_BASED ad appears in the Marketplace tab. It features a ‘Sponsored’ term above image or video content, contained in a thumbnail above a description.



Figure 15: An example of a Facebook MARKETPLACE_BASED Ad

STORY_BASED The STORY_BASED ad appears intermittently when accessing the ‘Stories’ feature. It features a ‘Sponsored’ term and a call-to-action above either image or video content.

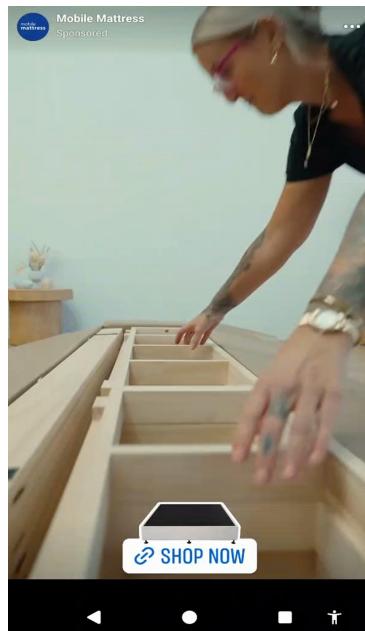


Figure 16: An example of a Facebook STORY_BASED Ad

FEED_BASED The FEED_BASED ad appears in the Home tab. It features an advertiser name and the ‘Sponsored’ term above image content and a description.



Figure 17: An example of a Facebook FEED_BASED Ad

3 Appendix B: Consent requirements of MOAT functionality

3.1 Background processing

MOAT is designed to continuously process advertisements that are served via various digital media outlets. To ensure that processing remains persistent, the app requires permission to allow background processing. On first execution of the app, the following dialog variations may appear to request permission.

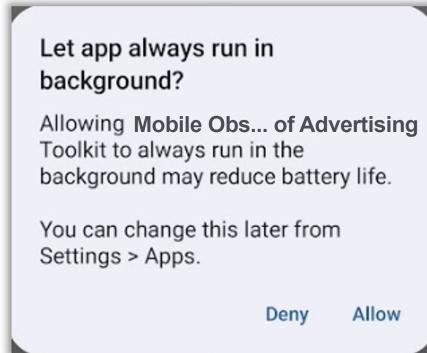


Figure 18: Variation 1 of background processing permission dialog

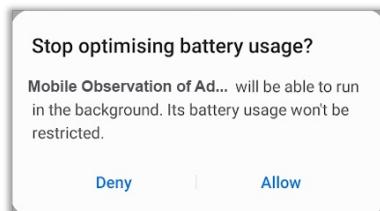


Figure 19: Variation 2 of background processing permission dialog

3.2 Mobile data usage

MOAT securely collects and uploads advertisement data from the participant device to a cloud-based database. This data transfer requires a stable internet connection.

If the participant does not regularly have access to a Wi-Fi internet connection, it is strongly encouraged that they configure their app's mobile data usage settings. This can be done by opening the app's settings, which may vary depending on the device. Below, some alternative configurations are shown to demonstrate how to correctly configure the app's mobile data usage.

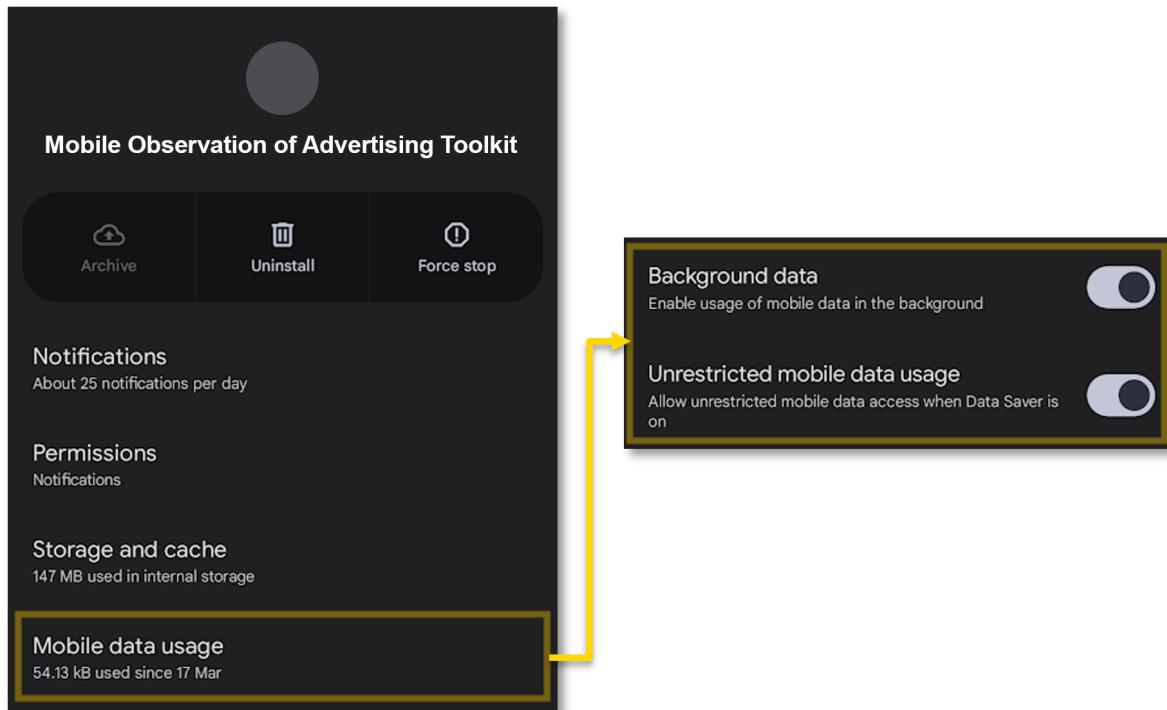


Figure 20: Variation 1 of mobile data usage app settings configuration

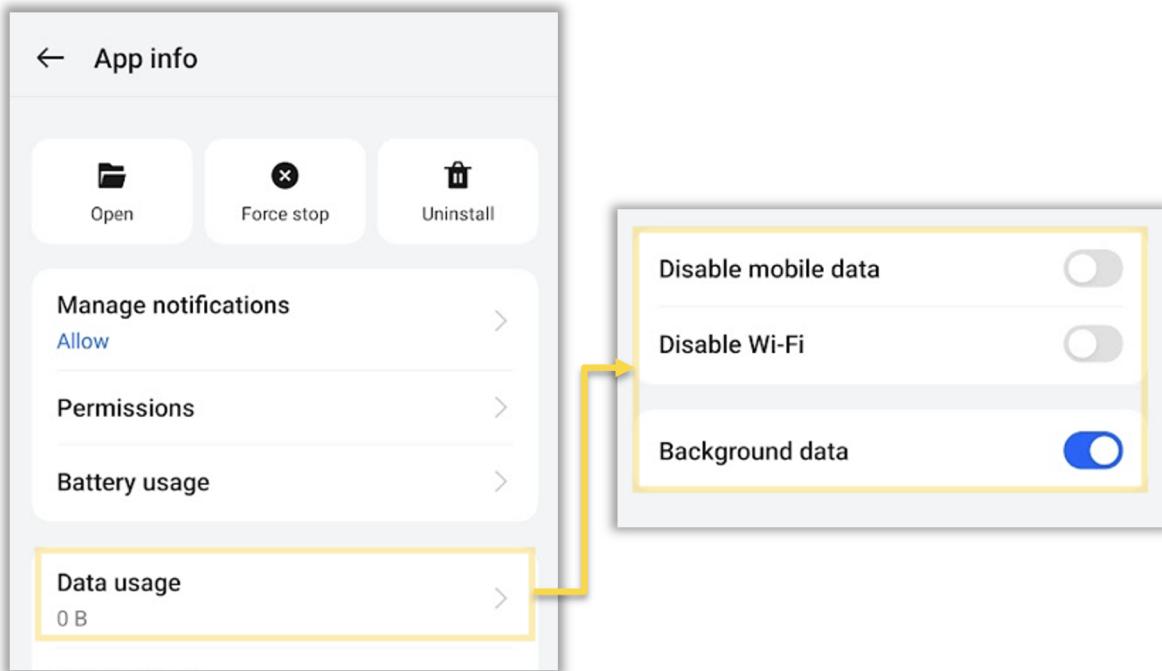


Figure 21: Variation 2 of mobile data usage app settings configuration

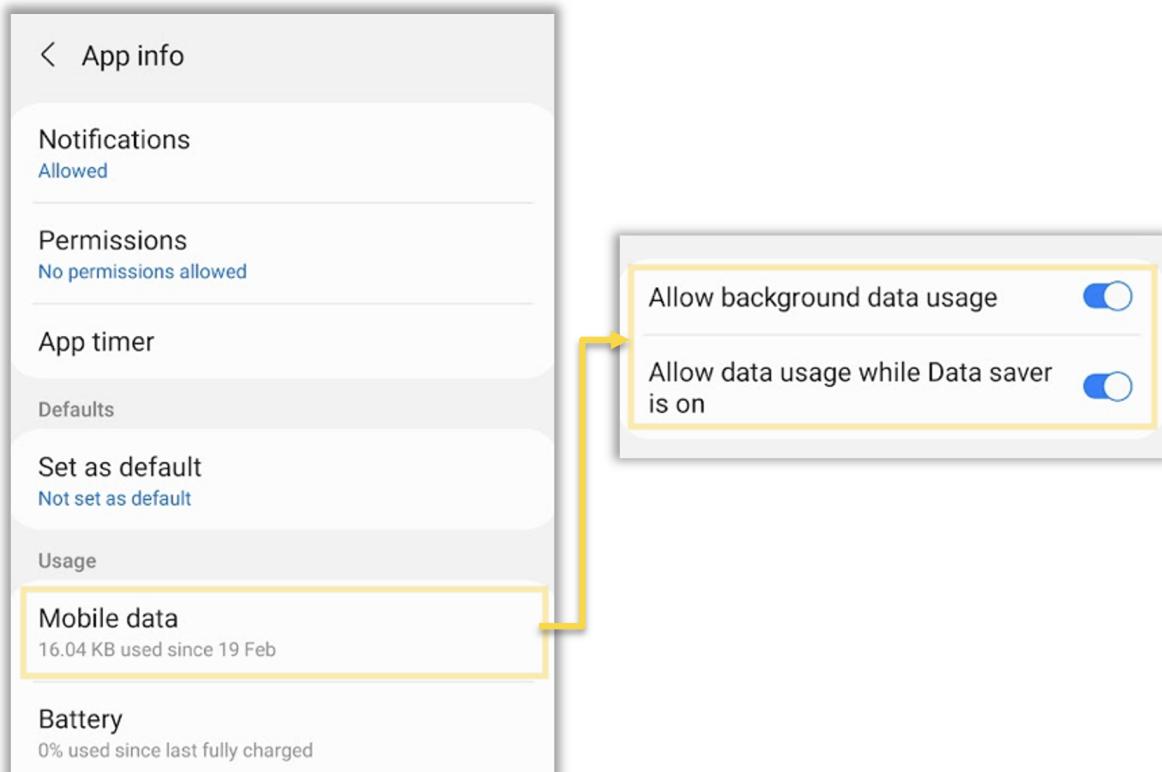


Figure 22: Variation 3 of mobile data usage app settings configuration

3.3 App management

Most Android devices seek to automatically remove permissions of apps that are not regularly used or opened. This conflicts with MOAT, which while containing ad review and other interactive features if often used as a non-interactive app. To ensure that the device is not interfering with permissions required for the app to function, it is optimal to disable automatic app management.

This is facilitated by opening the app's settings, and navigating to the 'Permissions' option. From within this page, the relevant option will either read as 'Manage app if unused', 'Pause app activity if unused', "Remove permissions if app isn't used", or as something similar. The participant would need to disable this option to ensure that MOAT's functionality remains consistent during the participation in the research study.

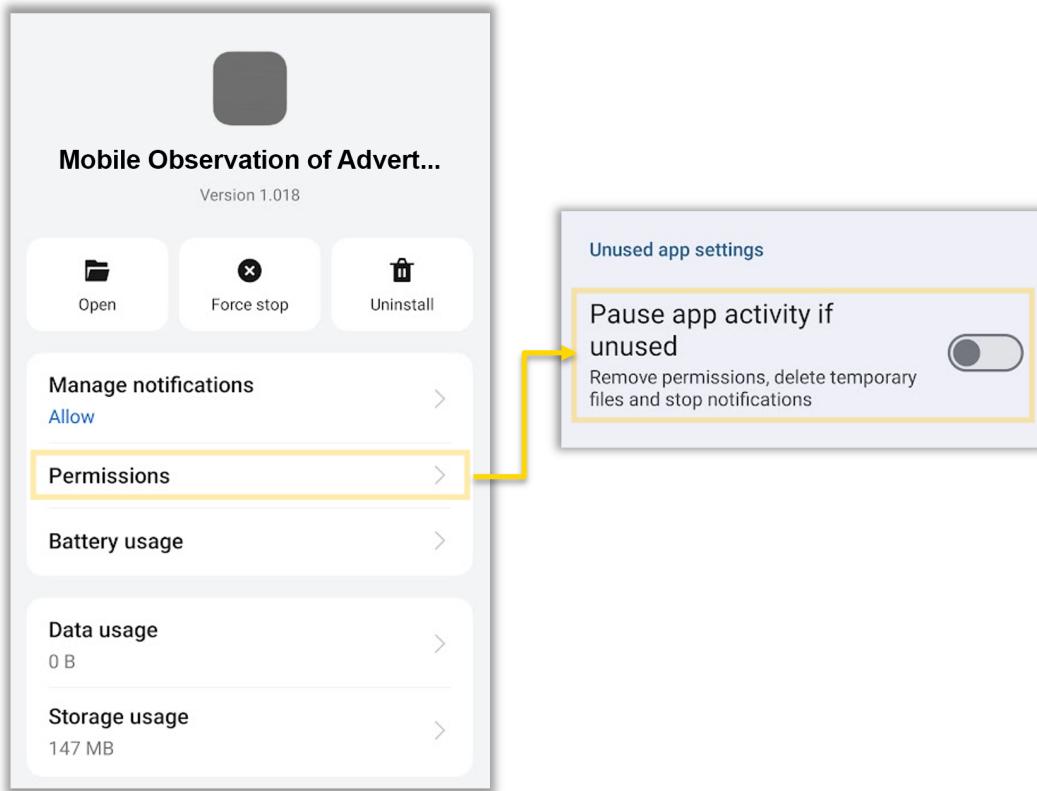


Figure 23: Variation 1 of app management disablement

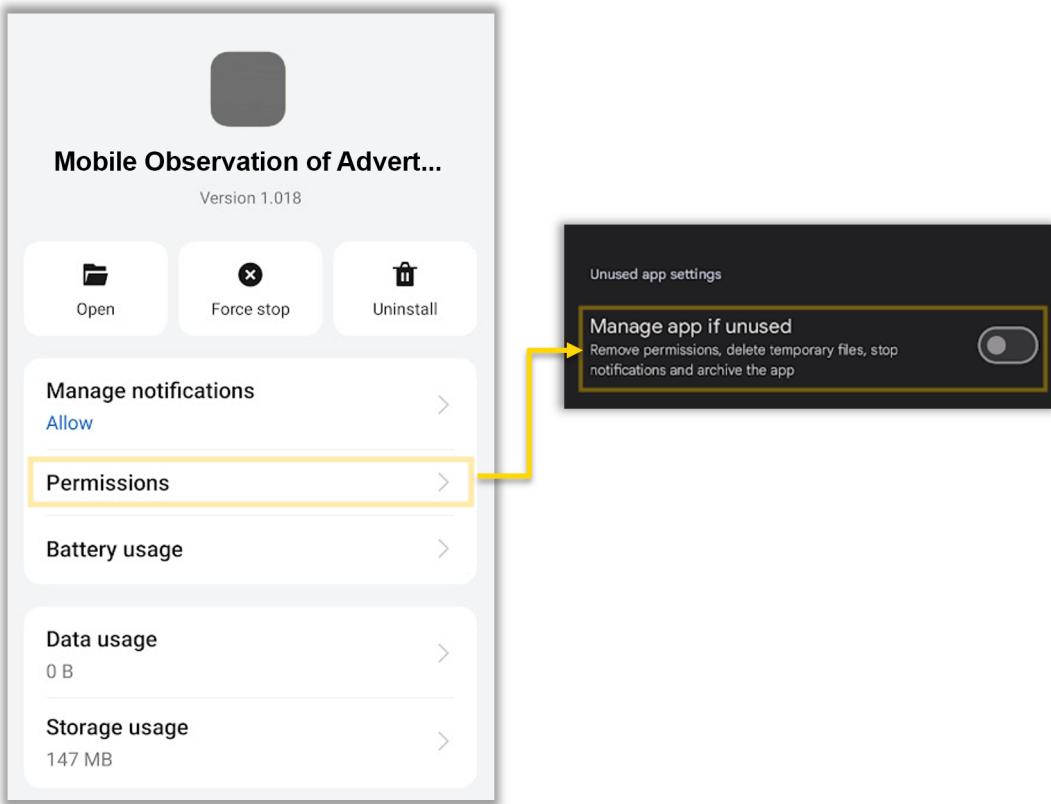


Figure 24: Variation 2 of app management disablement

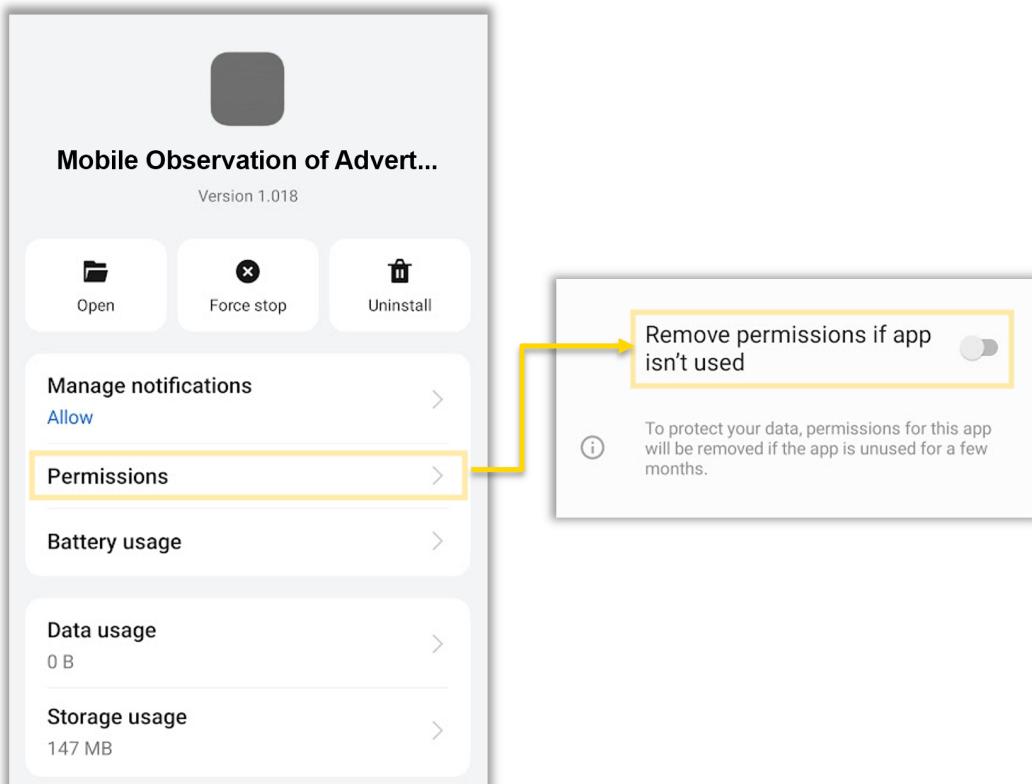


Figure 25: Variation 3 of app management disablement

3.4 Battery optimisation

Certain mobile devices have additional measures in place to automatically turn off apps that periodically perform background processing. While this is intended to conserve the device's battery, it can interfere with the functionality of MOAT's background processing. To this end, it is also necessary to turn off battery optimisation. Depending on the device, this may or may not be configurable – alternatively, up to three separate additional settings may need to be configured. If the device does not have any of the settings shown in the alternatives below, it may not require configuration in this regard.

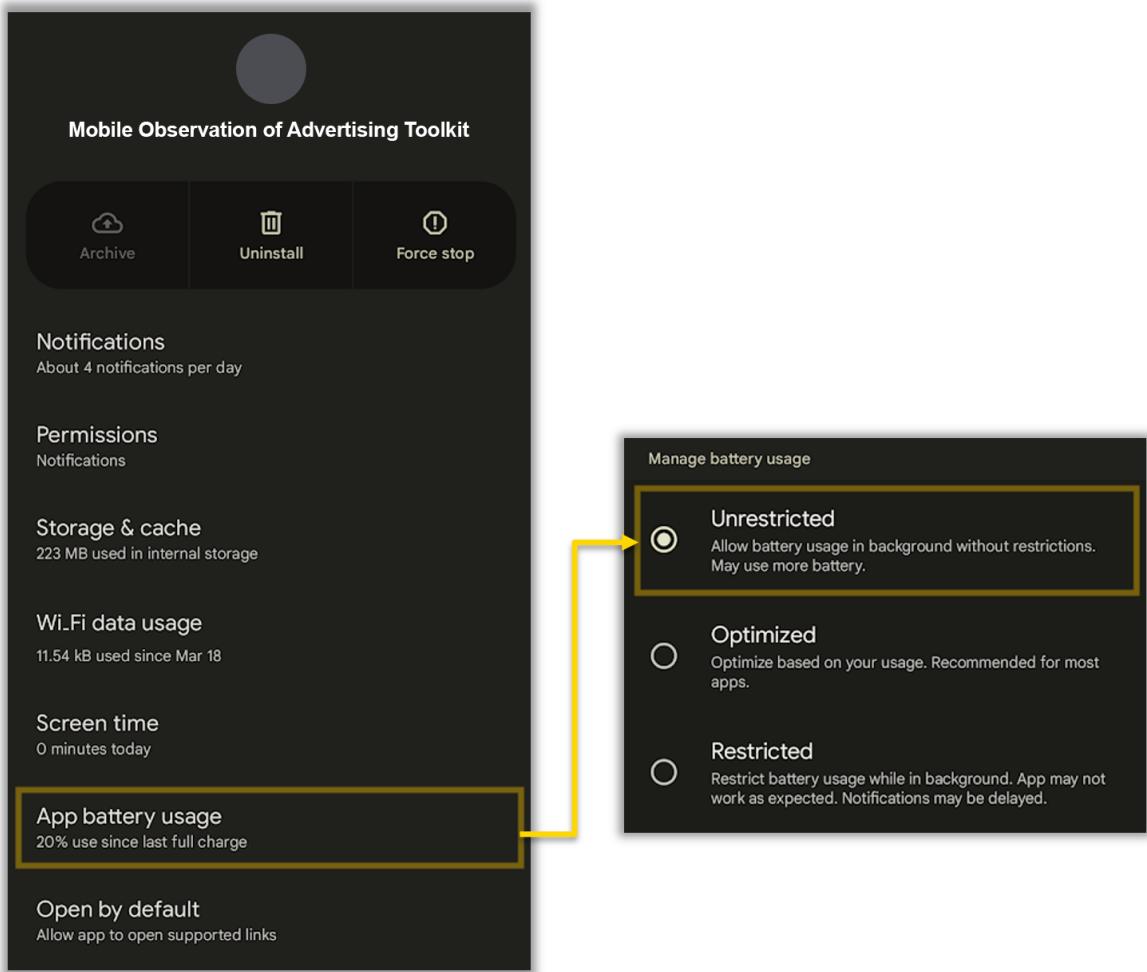


Figure 26: Variation 1 of battery optimisation

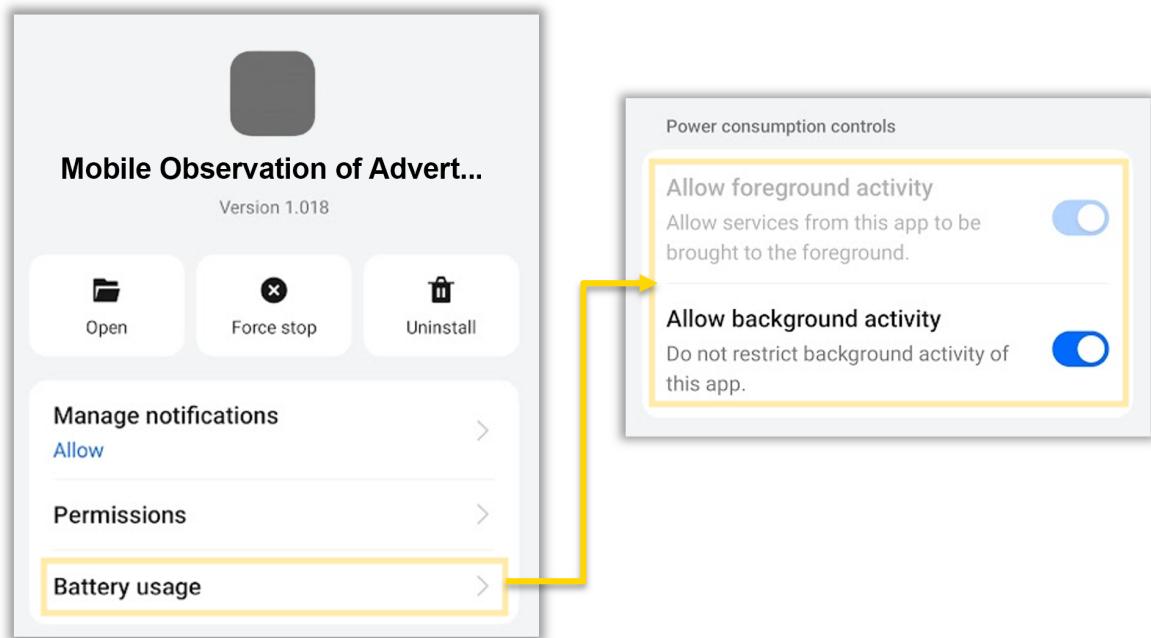


Figure 27: Variation 2 of battery optimisation

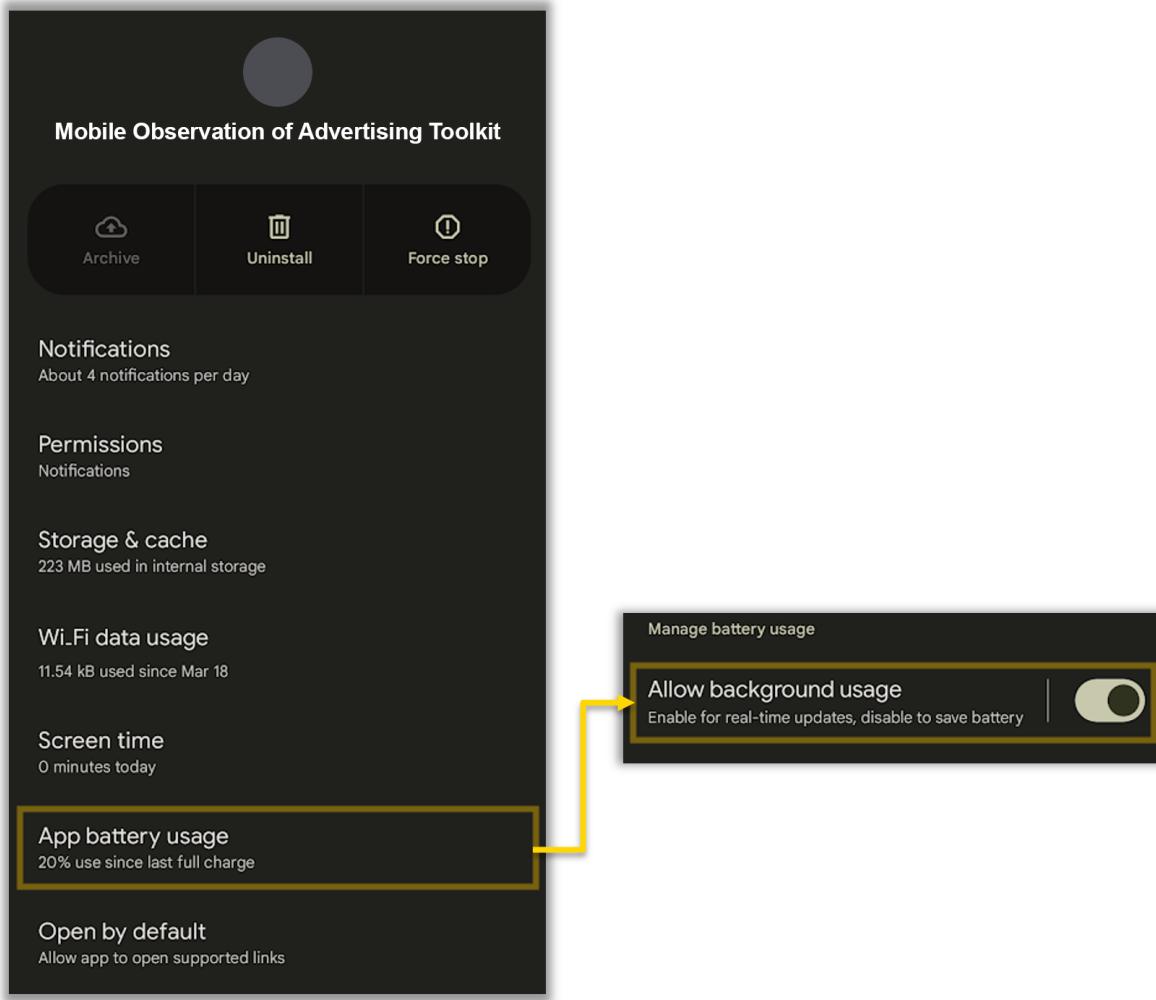


Figure 28: Variation 3 of battery optimisation

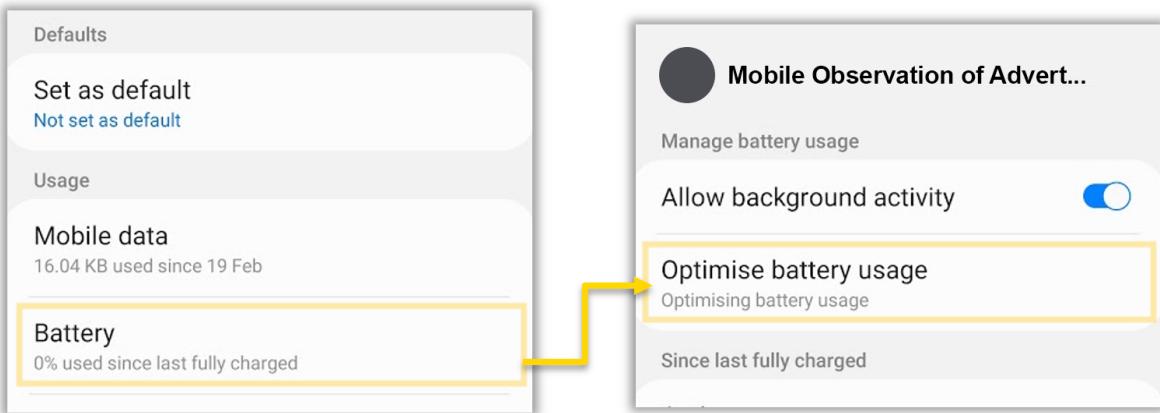


Figure 29: Variation 4 of battery optimisation - part 1

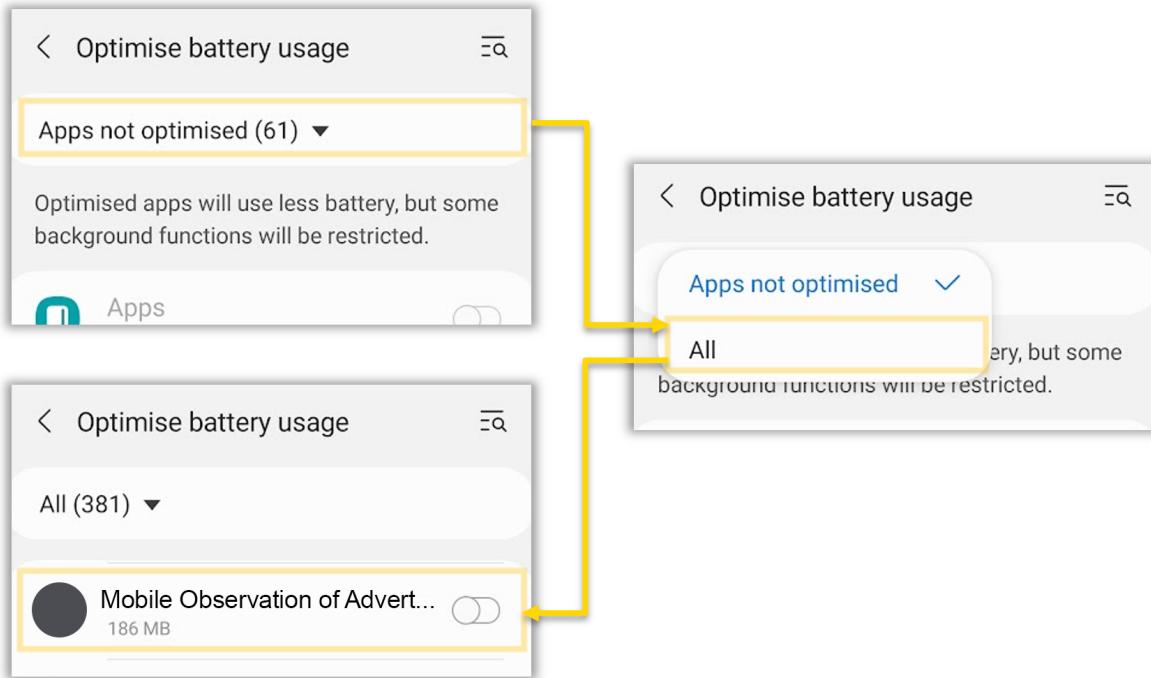


Figure 30: Variation 4 of battery optimisation - part 2

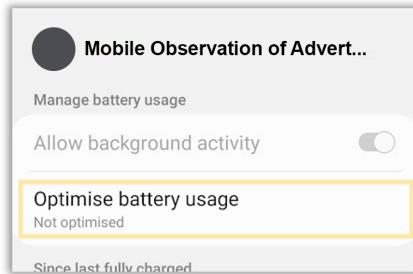


Figure 31: Variation 4 of battery optimisation - indication of correct configuration

3.5 Accessibility services

Upon clicking to enable Accessibility Services, the participant will be directed to a page within the device's settings where they will need to manually provide permission. These settings may differ from device to device – some possible alternative configurations are given below.

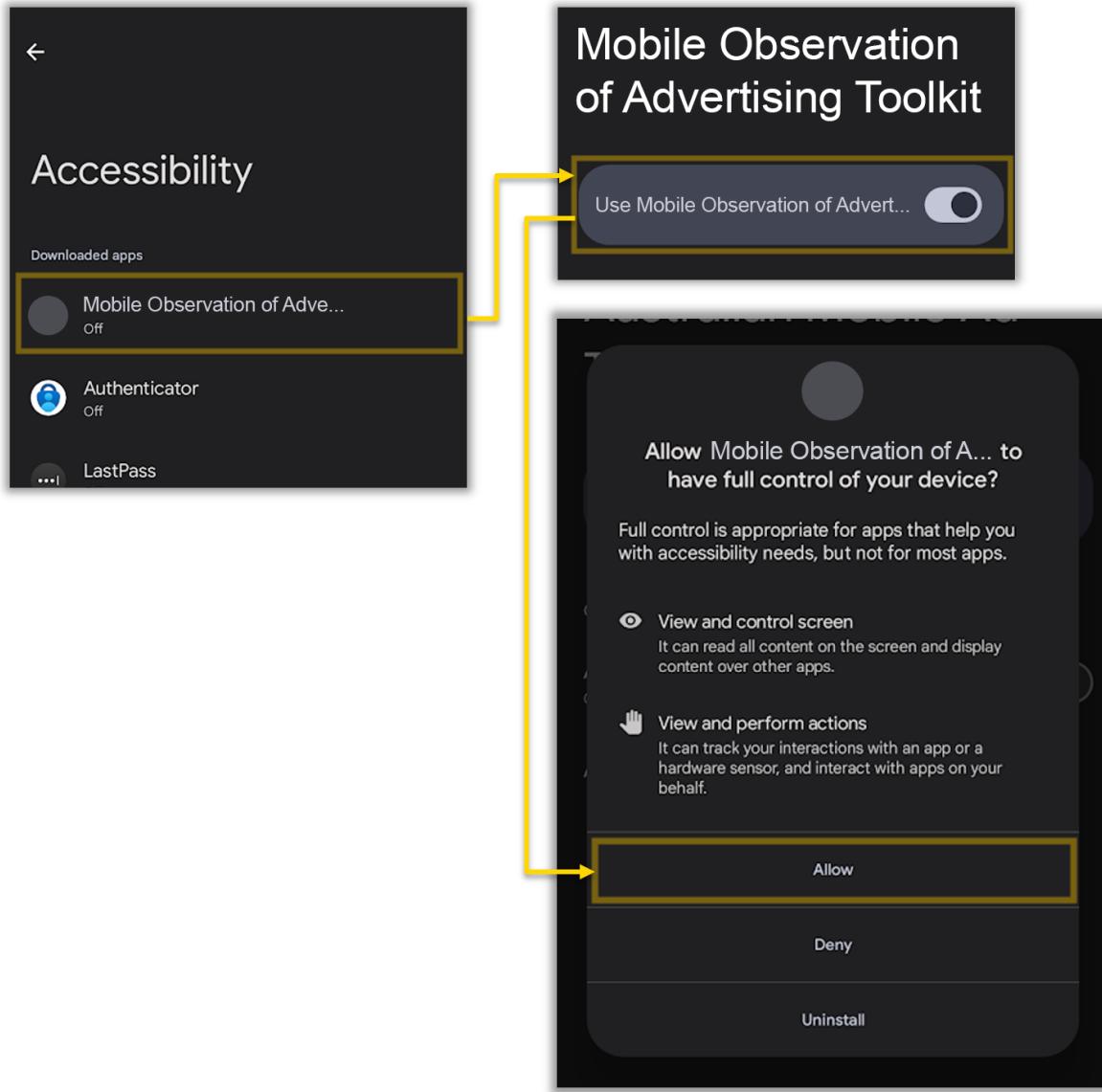


Figure 32: Variation 1 of additional settings

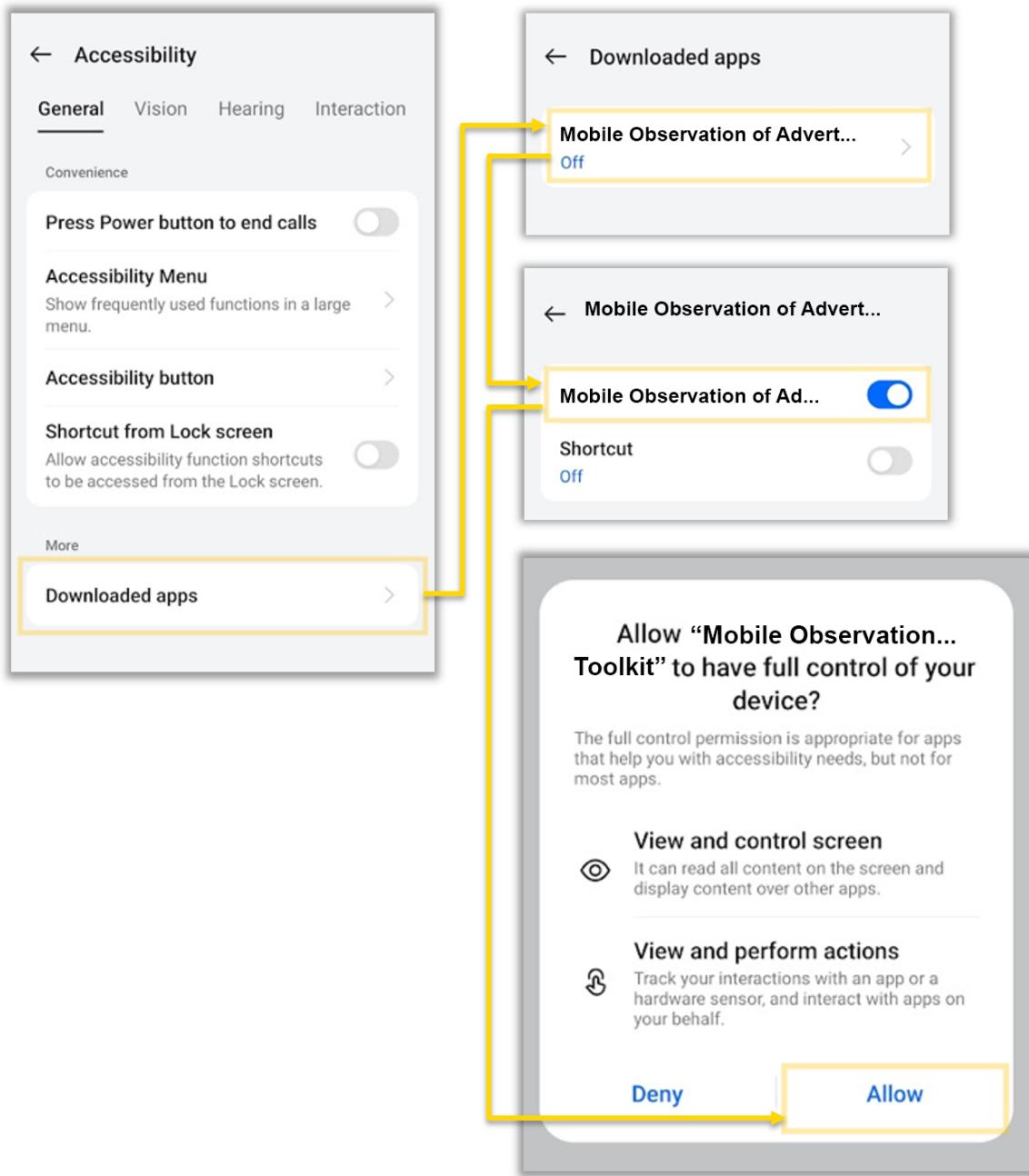


Figure 33: Variation 2 of additional settings)

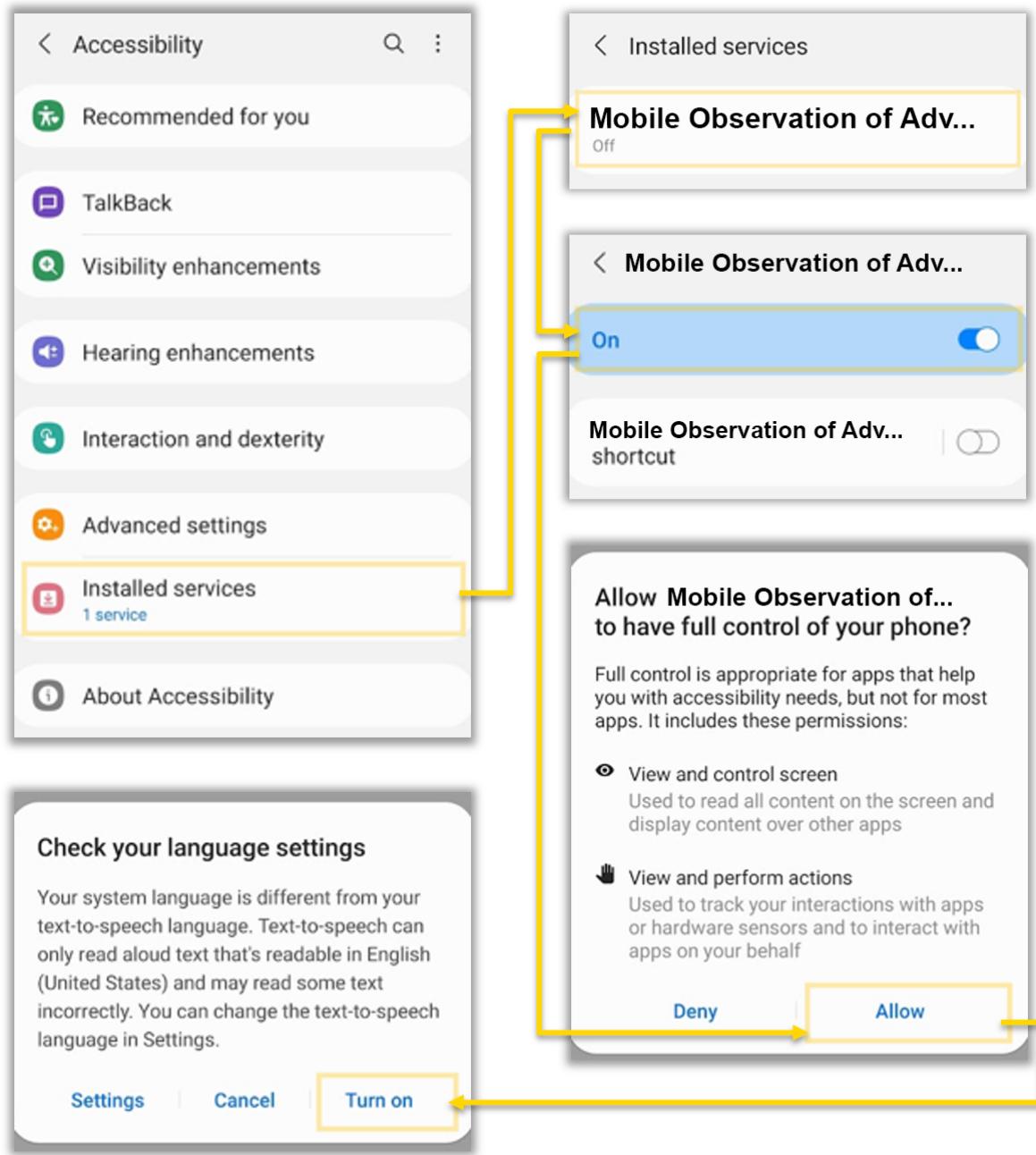


Figure 34: Variation 3 of additional settings