want to make sure your own child is in focus and has his or her face properly exposed. I tried this feature out by registering one face and then aiming the camera at that face along with an unregistered face. In some cases, the camera picked the registered one as the priority face, but at other times it chose the unregistered one. Other users have reported good results with this feature, though, so, if it would be useful to you, by all means explore it further.

Face Detection On

This setting is similar to the previous one, except that it does not involve registered faces.

As shown in Figure 4-40, the camera will detect any human faces, up to eight in total, and select one as the main face to concentrate its settings on.

Figure 4-40. Frames Indicating Multiple Faces Detected

Before you press the Shutter button, the camera will display white or gray frames around any faces it finds. When you press the Shutter button halfway to lock focus and exposure, the frame over the face the camera has selected as the main face will turn green. The camera may place multiple green frames if there are multiple faces at the same distance from the camera.

Smile Shutter

The final option for this menu item is the Smile Shutter, which is a sort of self-timer that is activated when the subject smiles.

After highlighting this option, you can use the Left and Right buttons to choose the level of smile that is needed to trigger the camera—Slight Smile, Normal Smile, or Big Smile. Then press the Center button to exit back to the shooting screen, and aim the camera at the subject or subjects. (You can, of course, put the camera on a tripod and aim it at yourself, if you want.)

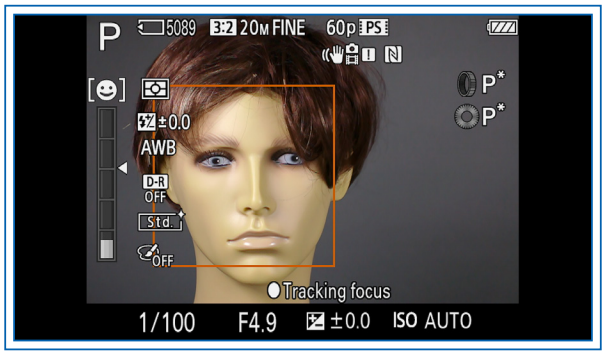

Figure 4-41. Smile Shutter Meter on Display at Left

As shown in Figure 4-41, the camera will then show a meter on the left of the screen with a pointer to indicate how large a smile is needed to trigger a shot. As soon as the camera detects a big enough smile from any person, the shutter will fire. The reddish self-timer lamp will illuminate, and you will hear the click of the shutter activating. If a person smiles again, the camera will be triggered again, with no limit on the number of shots that can be taken. So, in effect, this feature acts as a limited kind of remote control with one specific function. Here again, as with the Self-portrait Timer, I consider this option to be something of a novelty, which can be entertaining but is not necessary for everyday photography.

Auto Object Framing

This menu option provides a function that is somewhat unusual for any camera—it rearranges the composition of your shot based on its own electronic judgment. To activate it, set it to Auto on the menu. Then, when you compose your image, the camera will place a green frame around what it believes to be the subject if it finds that the image can benefit by being trimmed to fit the subject better. For this feature to work with faces, you need to have Face Detection turned on with the Smile/Face Detection menu option discussed above. Besides faces, Sony says that the feature will work with macro shots and objects tracked with Tracking Focus.

When you take a picture of the face or other subject, the camera may, if it finds it possible, crop the image and produce a new version of the image with the frame trimmed and resized to emphasize the subject in a more pleasing way. I found that the camera would crop shots of faces fairly often, but I had difficulty getting the camera to crop a shot of any other subject, even when I used the Macro and Tracking Focus settings. I ultimately found that the camera would use this feature for a macro shot of a toy soldier when I left considerable space to the left and right of the subject. However, on most occasions, the camera would not activate the feature unless I also turned on Tracking Focus.

The result is shown in FIGURE 4-42 and FIGURE 4-43, which show the uncropped and cropped versions, respectively, of the toy soldier I photographed using the Macro (closeup) setting of Scene mode, with Tracking Focus activated. The camera's cropping does look appropriate, but I would much rather do the cropping myself in Photoshop or just compose the image in this way to begin with.

Figure 4-42. Auto Object Framing: Original Shot

Figure 4-43. Auto Object Framing: Shot Cropped by Camera

The camera saves both versions, so there is no harm in using this feature. It could be useful if you are pressed for time or are unable to get into position to take the shot you want. If you need a more nicely cropped version of the image quickly for a slide show, perhaps, this could be a good way to fill that need.

This feature is available for selection only if the camera is set for autofocus with Autofocus Area set to Multi, and Quality set to Fine or Standard. (This option does not work with Raw images or with certain other settings.)

ISO

The ISO acronym represents the International Organization for Standardization, which develops international standards for many areas of industry, science, and other fields.

The original use of the ISO standard was to designate the "speed," or light sensitivity, of film. For example, a "slow" film might be rated at ISO 64, or even ISO 25, meaning it takes a large amount of exposure to light to create a usable image on the film. Slow films yield higher-quality, less-grainy images than faster films. There are "fast" films available, some black-and-white and some color, with ISO ratings of 400 or even higher, that are designed to yield usable images in lower light. Such films often can be used indoors without flash, for example.

With digital technology, the industry has retained the ISO concept to rate the light sensitivity of the camera's sensor. The ISO ratings for digital cameras are supposed to be essentially equivalent to the ISO ratings for films. So, if your camera is set to ISO 100, there will have to be a good deal of light to expose the image properly, but if the camera is set to ISO 1600, a reasonably good (but noisier or grainier) image can be made in very low light.

Generally speaking, you should shoot your images with the camera set to the lowest ISO possible that will allow the image to be exposed properly. (One exception to this rule is if you want, for creative purposes, the grainy look that comes from shooting at a high ISO value.) For example, if you are shooting indoors in low light, you may need to set the ISO to a high value (say, ISO 800), so you can expose the image with a reasonably fast shutter speed.

Otherwise, if the camera uses a slow shutter speed, the resulting image would likely be blurry and possibly unusable.

Of course, it's important to realize that high ISO settings are not a cure-all for poor lighting conditions. It is true that the RX100 II, with its backside-illuminated sensor, provides better low-light image quality than most cameras in its class. However, using the higher ISO settings is going to reduce image quality to a certain degree; the higher the ISO, the more such deterioration will be evident.

Figure 4-44. Top Image: ISO 160, Bottom Image: ISO 12800

For example, FIGURE 4-44 includes two images of a firefighter figurine taken with different ISO settings. I took the top shot with the RX100 II set to ISO 160, and the bottom shot with ISO set

to ISO 12800. As you can see, the image shot with the low ISO setting is considerably clearer than the high-ISO version.

To summarize: Shoot with low ISO settings (around 100 or 125) when possible; shoot with high ISO settings (800 or higher) when necessary to allow a fast shutter speed to stop action and avoid blurriness, or when desired to achieve a creative effect with graininess.

With that background, here is how to set ISO on this camera. As is discussed in detail in CHAPTER 5, one good feature of the RX100 II is that you can get quick access to certain important settings, such as ISO, using the Function Button menu, or, if you want, using the left or right control button or the Control ring. However, you can also set ISO from the Shooting menu. So, especially if you want to use the control ring and control buttons for other purposes, it's good to know how to get access to the ISO setting with this menu item.

ISO is the first item on the third screen of the Shooting menu. After you highlight it, press the Center button to bring up the vertical ISO menu at the left of the screen, seen in FIGURE 4-45.

Figure 4-45. ISO Menu Option

Scroll through the options by turning the Control wheel or by pressing the Up and Down buttons to select a value ranging from one of the two options—Multi Frame Noise Reduction and Auto

ISO—through 100, 125, 160, 200, and other specific values, to a maximum of 12800 at the bottom of the scale. (If you want to use an ISO value higher than 12800, you need to use the Multi Frame Noise Reduction feature, discussed below, or the High Sensitivity setting of Scene mode, discussed in CHAPTER 3.)

If you choose Auto ISO (the second option on the menu), the camera will select a numerical value automatically depending on the lighting conditions. However, one great feature of the RX100 II that I have not seen on many compact cameras is that you can select both the minimum and maximum levels for the Auto ISO. In other words, you can set the camera to choose the ISO value automatically within a defined range such as, say, ISO 200 to ISO 1600. In that way, you can be assured that the camera will not select a value outside that range, but you will still leave some flexibility for the setting.

To set minimum and maximum values, while the orange highlight is on the Auto ISO option, press the Right button to move the highlight to the right side of the screen, where there are two rectangles that are labeled when highlighted ISO Auto Minimum and ISO Auto Maximum, as shown in FIGURE 4-46.

Figure 4-46. ISO Auto Minimum Option

Move the highlight to each of these blocks in turn using the Right button, and change the value as you wish, using the Up and Down buttons or turning the Control wheel. You can set both the

minimum and the maximum to values from 160 to 12800. When both values have been set, press the Center button to exit back to the shooting screen.

Once those values are set, whenever you select Auto ISO, the camera will keep the ISO level within the range you have specified. Of course, you can always set a specific ISO value at any other level by selecting it from the ISO menu—the minimum and maximum values apply only when Auto ISO is selected.

Multi Frame Noise Reduction

Finally, I will discuss the top item on the ISO menu, whose icon includes the ISO label and a stack of frames. If you highlight that icon with the orange selection block, you will see that the name of this option is Multi Frame Noise Reduction.

This special setting lets you select an ISO value as high as 25600, twice as high as the maximum value that you can set from the standard ISO menu. This value is an "expanded" setting, derived electronically from the camera's programming. When you select the Multi Frame Noise Reduction option, the camera will take multiple shots in a rapid burst and combine them internally into a composite image with reduced noise. This processing takes place to counteract the effects of using very high ISO values, which introduce a considerable amount of noise into the image. The camera also attempts to select frames with minimal motion blur.

After you have selected Multi Frame Noise Reduction, use the Right button to move the selection highlight to the right side of the screen. The highlight will then be on the selection block for the ISO setting to be used, as shown in Figure 4-47. Use the Up and Down buttons or turn the Control wheel to select a value, which can be set to Auto or to a specific value from 200 all the way up to 25600. If you choose Auto for this setting, then the camera will select an ISO value up to 25600 according to the lighting conditions, and it will take multiple shots using that value. You cannot use the flash when Multi Frame Noise Reduction is in

effect. Also, you cannot use Raw quality or continuous shooting with this setting.

Figure 4-47. Multi Frame Noise Reduction Setting

Using the Multi Frame Noise Reduction setting is the only way to set the RX100 II to the ISO levels above 12800. (You can, however, use the High Sensitivity setting of Scene mode, in which case the camera may use those high settings if it finds it necessary.) If you are faced with the prospect of taking pictures in an unusually dark environment, consider using this specialized setting, which really is more akin to a shooting mode than to an ISO setting.

Figure 4-48. Multi Frame Noise Reduction Example

In FIGURE 4-48, I used this setting to capture a view of people buying tickets at a neighborhood movie theater after dark. The