

Fantastic 5 of Exposure

The FANTASTIC FIVE of exposure. If you are new to Off Camera Flash and have been a natural light shooter, this post is for you.

To be successful, you have to reset your way of thinking.

To reset your way of thinking, you have to truly begin to understand how you obtain your exposure and on what parts of the image.

If I go outside and take a photo without a flash, I have three and only three options.

I can adjust the shutter, aperture and ISO to obtain a "good" exposure on the scene I am shooting.

When you shoot natural light, or ambient light, or available light...whichever you prefer to call it, you get in the habit of focusing on the subject.

If I'm taking a photo of a girl standing in a field of flowers, my primary focus is on the subject. Exposure wise, therefore, my focus is on the amount of light hitting the subject.

Thus, I would adjust my ISO, aperture and Shutter speed to try and get a good exposure on the subject.

But here's the problem, if I have my subjects face turned to the sun so I really crank closed on everything to limit the amount of light on the face, my shadows may block up and turn black....but I let that go because I'm worried about the light on the face.

If I turn the subjects back to the sun, now the face is in the shadows...so I have to crank the camera open to get more light on the shadow side, and what happens is my sky blows out.

These are the by products of latitude and contrast. Ya can't have your cake and eat it to.

So, what most "available light" photographers do is look for low latitude, low contrast areas to shoot. They look for nice soft even light.

Whether they realize it or not, they are trying to find a place to place the subject so the light on the subject is nice and even and pleasing, without it being out of control in the background.

Or they do what a lot of available light photographers do, and they find a place where they can shoot trees or foliage in the background which takes the sky out of the equation so even though it would be blown out, it's not in the scene.

This of course can be quite limiting.

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And in any case, the primary focus is getting good light on the face of the model (in most cases).

Now you have to stop and consider something.

If you put a grey card out in a field and took a photo of it, and the ONLY thing you were concerned about was the exposure on the gray card, turning open the aperture or turning up the ISO or slowing the shutter down, either by itself or in combination, will do only ONE thing...if you ADD light to the exposure, the gray card will get lighter. If you close them down (faster shutter, lower ISO or smaller Fstop...f11 or F16 for example) the gray card will get darker.

So all three of those factors, ISO, SS or Aperture, simply increase or decrease exposure.

BUT, as the gray card goes up or down in exposure...so does the ENTIRE scene you are shooting.

Try to make the gray card lighter and the sky becomes lighter too. Try to darken the gray card and the shadows and sky get darker.

Ambient or single light photography results in the ENTIRE scene getting lighter or darker as you adjust the camera.

Enter flash to the rescue.

I can turn on a flash and power it up or down. So in the same way that turning the aperture up or down, or slowing the shutter down ADDS more light to the photo, turning on a flash and turning it up ADDS light to the exposure...BUT ONLY in the the spots where the flash is hitting.

Imagine going out into a garage that has a single light bulb on. And o.k....it's not totally dark, but you are still having a hard time seeing. If you turned the intensity of that lightbulb UP, it would add more light to the entire garage.

BUT, if you then turned on a flashlight, you could aim it around into the shadows and lighten them...or you could shine it on just one wall and where it is hitting would be brighter than the rest of the wall.

So FLASH not only ADDS light to the scene...but only where it's hitting.

Secondarily, DISTANCE effects flash.

So, if I was standing in the garage and point the light at the front of the car and some of the light gets passed the the car...if the wall is far enough away, I don't really see any change on the intensity of the light on the wall, but I clearly can see the front of the car better.

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Truly understanding the difference between how adjusting the camera effects the entire scene and understanding how adding a flash only effects where the flash hits is the secret to OCF.

Let's go back to my girl standing in a field.

If I set my exposure to record the ENTIRE SCENE with no blow out, my focus is NOT on the subject but the entire scene. What controls the entire scene? The camera and the ambient light.

I use a combination of aperture, ISO and shutter to get the light on the entire scene right. My focus ISN'T on the girl...just yet.

ONCE I get the entire scene properly exposed, NOW I look at my subject, and see that she is too dark with her back to the sun.

knowing if I change anything...ISO, Aperture, or Shutter to try and lighten the exposure on her is going to lighten the whole scene...I bring in flash.

Knowing if I target flash, just on the subject, I can lighten her up without effecting my background, I turn the flash on, and use flash power and distance to lighten her to match the ambient exposure.

In natural light photography where the primary focus is the light on the model, you examine the light on the model first.

In flash photography, you examine your background or ambient exposure area FIRST. You set the cam to the exposure your ambient is providing, and then supplement that light with the light from the flash.

The same as if you were going out into the garage... you first turn on the overhead light, and THEN turn on your flashlight to highlight import areas.

You have to reset your way of thinking into 2 parts. The ambient exposure and the flash exposure.

Both make up the whole, but both are separate and distinct and controlled separately.

Some people make the mistake of trying to control the flash with their aperture...but if you turn your aperture down to cut the flash (at a given power setting) you are going to reduce your ambient as well.

Using the flash power settings and distance to control the exposure on the subject allows you to control it INDEPENDENTLY of your background.

Let's say I go out and I place a girl in a field of flowers. I set my CAMERA for a

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nice exposure on the background and turn on my flash and feed in just enough power till she looks nice and well exposed.

NOW, I can raise my shutter to cut some of the ambient...that will darken the background, but my flash will still light the model to the same level...so I can adjust my background up or down using the shutter.

If I want my background lighter, I could slow the shutter down to let more of the ambient in normally without effecting the model much. You do have to consider that some of the ambient may be providing fill on the model so anything that raises the ambient, raises our fill level, so you may have to slightly adjust the flash power if you make an ambient level change.

When you take a test shot, try to think of it like this:

IF I adjust my shutter, aperture or ISO, it will effect my scene with or without flash.

IF I turn the flash up or down, or move it closer or further away, it will effect my scene, but only where the flash is hitting.

If I adjust my aperture with the flash on, it will effect both the flash exposure and the ambient exposure.

If I adjust my shutter with the flash on, it will greatly effect the ambient, but will produce little change on the subject (unless a lot of ambient fill is hitting the model).

ISO will effect my ambient and flash.

Ask yourself what are you trying to change in the shot.

If you are trying to change the background...change your settings on the cam.

IF you are trying to change the light on the subject, change the settings or distance on the flash.

IF you want to reduce or increase both the ambient and the flash, change the aperture.

If you just want to change the ambient once the flash is set, try changing the shutter only.

At first it may seem complicated, but it really is quite easy, once you get the hang of it.

All five factors, only go 2 directions, up or down.

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Shutter up or down will effect the ambient, primarily.

ISO up or down, will effect the entire exposure, with or without flash.

Aperture will effect both the ambient and the flash.

Flash power, up or down, will effect the areas where the flash is falling.

Flash distance, closer or further away, will effect the subject and areas where the light is falling from the flash.

It gets even easier when you consider that 1/250th of a second (or 1/160th) is the max sync speed of most cams (without going into HSS mode) The problem is, if you SLOW the shutter much below about 1/30th you risk camera shake or motion blur. So I find the shutter to be of limited usefulness to a beginner. If you are shooting a 105 mm lens, you should try to stay at 1/100th or faster anyway to avoid camera shake. But if you go above 1/160th or 1/250th you exceed max sync speed. So for a beginner, I suggest, while you are first learning, just set your shutter at max sync speed and leave it there.

ISO, isn't something you generally are changing with every shot. In bright sunlight, you are normally going to bottom it out a 100 (or 200 if that is as low as your cam goes) In middle of the day light you might try setting it at 200 or 400. Towards sundown, you may even go as high as 800 or 1600...but at some point you get the dreaded noise.

So really, the PRIMARY factor for setting your ambient exposure (with the above considerations) is your APERTURE.

For students, I suggest putting your ISO and Shutter on a given setting and just leave them there. That means if I am trying to take a photo without flash, the only thing I turn (up or down) is the aperture wheel.

Just bear with me and try it. Go outside on a sunny day. Bottom your ISO at 100 or 200. Set your shutter at 1/160. Now leave them alone.

Practice trying to get a nice landscape shot using nothing but the aperture wheel to control your exposure. It only goes 2 ways, up or down.

Once you get the hang of adjusting your landscape shot, up or down, with nothing but the aperture wheel, introduce a subject into the scene.

Place their back to the sun. This will mean the subject is always darker than your ambient exposure...because they have their back to the light.

They will always then, need more light ADDED to them, to get a good exposure.

Turn on a flash, AFTER setting a good exposure, just as if you were trying to do

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nothing but take a landscape shot. Now turn the flash up or down, or move it closer or further away from the subject to adjust the exposure on the subject.

Experiment with moving the flash closer and further away as a means to adjust the exposure on the subject. Experiment with turning the power up or down as a method of getting a good exposure.

If you try this, you will find in your mind, it will begin to click that you adjust the CAMERA for the background and the flash for the subject AND that you adjust for the background FIRST and add flash Second.

Once you get the concept and can produce a nice balanced image using nothing but the aperture wheel on the camera and the flash for the subject,...then you can start experimenting with adjusting the Shutter speed to change the ambient,

Or turning the aperture down, to both darken the subject and the background, and adding in more flash.

It's a long read, but a simple concept.

CONTROL THE LIGHT in the scene with the camera. Control the light on the Subject with the flash.

Don't concern yourself with whether the light from the flash is hard or soft. Don't concern yourself just yet with the shadows the flash will create.

Concentrate on making the background nicely exposed with no blow out and not too dark, and using the flash to raise and lower the exposure on the subject.

It's the foundation you have to learn first.