Seduced By ‘Perfect’ Pitch: How Auto-Tune Conquered Pop Music

Guiding Question: How can the pitch of a person’s voice be changed?

In January of 2010, Kesha Sebert, known as ‘Ke$ha’ was placed at #1 on music charts for her album Animal. Her music style is classified as pop-y dance music: she alternates between rapping and singing, the choruses of her songs are typically melodic party hooks that stick in your brain: “Your love, your love, your love, is my drug!” And at times, her voice is so heavily processed that it sounds like a cross between a woman and a synthesizer. Much of her sound is due to the pitch correction software, Auto-Tune.

For every Kesha there are 100 other artists who are Auto-Tuned in subtler ways. Fix a little backing harmony here, bump a flat note up to diva-worthy heights there: smooth everything over so that it’s perfect. You can even use Auto-Tune live, so an artist can sing completely out of tune in concert and be corrected before their flaws ever reach the ears of an audience. On season 7 of the UK X-Factor, Auto Tune was used so excessively on contestants’ auditions that viewers caught on and protested the show.

Auto Tune technology, which debuted in 1997, works like this: If a singer is out of tune or off pitch, the vocal (sound) track can still be rescued – or ruined, depending on your point of view – with a little help from the science of sound signal processing. Signal processing is how signals (like sounds) are created and stored. Signal processing can be divided into two categories: analog signal processing and digital signal processing. Most of today’s modern technologies use digital signal processing.

The pitch of a note is dependent on the frequency of the sound wave produced. Manipulating (changing) the frequency of a sound produces a different note (or pitch). If a singer is off pitch, the sound of his / her voice can be changed by changing the frequency of the note being sung. If a note needs to be a slightly higher pitch, the frequency of the sound is increased (also making the sound waves travel faster). If a note needs to be a slightly lower pitch, the
frequency of the sound is decreased (also making the sound waves travel slower). An entire song can be sung off-tune but then be corrected by Auto Tune technology. This means that your favorite music artists could be a terrible singer in person but still make millions of dollars selling music with the help of Auto Tune.

The Auto-Tune effect has spread like a slow burn through the music industry, especially within the R&B and dance music communities. "It's makin' me money, so I ain't about to stop!" T-Pain told DJ Skee in 2008. Kanye West also created an album using mostly Auto Tune. Lady Gaga uses it. Fetty Wap, too. Auto-Tune technology seems destined to be remembered as the “sound” of the 2000s. What happens when an entire industry decides it’s safer to bet on the robot (autotune) to create the perfect pitch sound? Will we start to hate the sound of our own voices?