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|  **Production Techniques** |
|  | **Rolling stones** | **Britney SPEARS** |
| **Recording Techniques** | -High recording levels( Input gain) resulting in tape saturation. High noise levels of tape machine and electronics resulted in engineers having to record at high level to ensure a good signal to noise ratio. REDUCED DYNAMIC RANGE-Lead Vocals in Verse up front-Backing Vocals further back in the mix, possibly one microphone used to record vocals-overdubbed vocals | -Sequenced parts -Multiple vocal takes-Combination of audio and sequenced tracks-close microphone techniques allowing for extensive processing in the mix stage |
| **Technology**  | Early analogue tape recording(60s)-Mono -Guitar Noise at the start and end of track.-Distortion( Tape Saturation)-Analogue tape-Electric guitar  | Digital technology(90s)-stereo-sequenced drums-synthesizer-clean and clear production because of the increased dynamic range( better signal noise ratio)-sampling( orchestral stabs and reverse sounds)-synth FX-Digital keyboards used to create sounds e.g. acoustic steel string guitar. |
| **Balance and Blend** | -Electric guitar riff and bass up front in the mix-Acoustic guitar and tambourine send to the back of the mix.-“I can get know satisfication” up front in the mix-vocals and backing vocals further back in the mix-Driving 4/4 kick and snare up front in the mix. | - thumping kick and synth bass up front in the miss-lead vocals up front-backing vocals panned |
| **Stereo Field** | -Mono. All instruments appear in the centre | -wide stereo image-Lead Vocals centre-backing vocals panned L and R-synth bass, kick and snare centre -synth FX panned to |
| **Dynamics Processing** | -wide variation in dynamics, no compression used to even out levels-“shouted” vocal performance, further away from the microphone-no use of compression, most instruments played at maximum level | -extensive use of compression results even dynamics throughout -narrow dynamic range-limiter to ensure maximum level of pop production. |
| **FX Processing** | -Fuzz on electric guitar-overdubbed vocal dry, no reverb used-natural ambience of the room used for backing vocals-reverb on tambourine( possibly natural or echo chamber) | -Lead vocal is dry -multiple takes of backing vocals adds to an ensemble effect.-Long Reverb time at the start of the song on vocals-steel string guitar has  |
| **EQ** | -narrow frequency range-mid-rangy( twangy) electric guitar-boomy bass guitar-boxy  | -heavily filtered vocals-automated filter FX |
| **STYLE** | RockStandard rock instrumentation-Drum kit, bass, electric, vocals including acoustic guitar and tambourine | Pop-synth bass, sequenced drums( possible drum machine and/or sampling) |
| **Texture** | Very little variation. Driving kick and snare drum and bass throughout. Fuzz guitar drops out when the dry overdubbed vocals enter provides a short change in texture. A few transitions with just the drums  | Starts with a thin texture with vocals, steel string acoustic guitar, kick and finger snaps. Texture builds as more synths and FXs is addedd |