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## Combat Dialogue in *FEAR* *The Illusion of Communication*

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### 2.1 Introduction

If the AI didn't say it, it didn't happen. This was the AI-design philosophy behind the squad behaviors in *FEAR*. There is no point in expending significant effort implementing complex AI if the player doesn't notice it. In developing *FEAR*, we found that having AI characters vocalize and commentate while executing squad behaviors is a highly effective means of bringing whiz-bang AI to the player's attention. While game developers typically remember *FEAR* for its Goal-Oriented Action Planning [Orkin 06], it is obvious from the reviews and forum chatter that the coordinated squad behaviors are what stood out for *gameplayers*.

### 2.2 From Barks to Dialogues

The guiding principle behind combat banter in *FEAR* is that whenever possible, AI characters should talk to each other about what they are doing. Rather than having an individual character react with a *bark*, multiple characters carry on a short dialogue that broadcasts mental state and intentions to the player.

Let's clarify this with barks from some prototypical first person shooter (FPS) game-play situations. In the typical FPS, when you fire at an enemy, he cries out in pain. When an AI detects the player for the first time, he shouts, "There he is!" When the agent loses sight of the player, he exclaims, "Where did he go?!" When you land that headshot that takes out the enemy, he says ... nothing, because he's dead. And dead men don't speak.

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Why are the AI always “talking to themselves?” Often, these barks sound contrived, out of context, and fail to convincingly sell the situation to the player.

How can we improve upon these age old, tried and true, ever so familiar FPS tropes? In *FEAR*, where enemies were introduced in squads of 4 or 5, we turned each of these situations (and more) into a *dialogue* rather than a bark. We authored a variety of canned dialogues (sequences of 2 or 3 lines) that we could trigger when enough squad members were in proximity and some criteria was met.

Instead of having the enemy who got shot cry out in pain, someone else on the squad would yell, “What’s your status?” The injured AI replies, “I’m hit!” or “I’m alright!” This dialogue serves multiple gameplay purposes. First, it tells the player that he hit someone. Second, it reinforces the illusion that AI are working together as a squad in a humanlike way. Lastly, it hints to the player the enemy’s state of health.

When the AI are in pursuit as the player cunningly slips out of sight, they engage in a dialogue like in Figure 2.1, “Anyone see him?” “He’s behind the tree!” The simple design task of tagging identifiable regions of space has a big bang for the buck. Stealthily crawling through the air ducts in *FEAR*, and hearing the enemy shout, “He’s in the ceiling!”, was certainly a memorable, “oh sh\*t!” moment, for many players.

Dialogue can also be used to explain a lack of action to players. If you’re firing at someone and they’re not repositioning, they look like dumb, unintelligent, broken AI. But if you overhear the dialogue “Get out of there!” “I’ve got nowhere to go!” you can understand that the AI is aware of the threat, and wants to move, but can’t find a better position to move to.

Similarly, if you find yourself in a stalemate with the AI, where no one is moving, it may feel like an AI failure. AI in *FEAR* kept track of regions of space where they observed comrades taking fire, or dying. They would refuse to move into these regions for some period of time, resulting in a dialogue between two squad members like “Advance!” “No f\*\*\*ing way!”

In terms of production budget, this last point may be the most valuable of all. Dialogue can be used to create the illusion of behavior that has never even been implemented. In *FEAR*, enemy AI kept track of how many of their squad members had been killed. They could call out, “Man down!”, “I’ve got two men down!”, etc. When only the last squad member was left standing, he could call in reinforcements, “I need reinforcements!” In



Figure 2.1

Dialogue works better than barks for conveying agent intelligence or even intelligence that doesn’t actually exist. Dialogue convinces players that the AI is actually coordinating against them.

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any FPS, it is likely that the player will see more enemies sooner or later, and if the player just heard, “I need reinforcements!” he is likely to draw the conclusion that these are the soldiers that the last guy called in. We never wrote any code for the AI to call in reinforcements, but the reviews said we did!

It’s interesting to note that reverberations of what we pioneered in *FEAR* still echo today, with games like *The Last of Us* using similar dialogue tricks among the AI to intensify and polish the experience [McIntosh 15]. While it seems like such a simple trick, the impact it can make on players should not be underestimated.

## 2.3 Conclusion

We often fixate on animation as the primary means of AI expressing mental state. However, don’t underestimate the power of language. As humans, we put ourselves on a pedestal due to our capacity for using language and judge other beings accordingly. Our perception of intelligence is elevated at a subconscious level when we see others who can use language effectively. Keep this in mind when designing behavior, especially social behavior. Use canned dialogue early and often. Impress your friends. Impress reviewers. And leave players with moments they’ll never forget.

## References

- [McIntosh 15] McIntosh, T. 2015. Human enemy AI in *The Last of Us*. In *Game AI Pro<sup>2</sup>: Collected Wisdom of Game AI Professionals*, ed. S. Rabin. Boca Raton, FL: A K Peters/CRC Press.
- [Orkin 06] Orkin, J. 2006. 3 states and a plan: The AI of F.E.A.R., *Game Developers Conference*, San Francisco, CA.