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**Survey Of Literature Summary**

In the first publication, "Meta-Learning with Warped Gradient Descent," a preconditioning matrix is embedded into the task-learner to present Warped Gradient Descent (WarpGrad), an approach to enhance gradient-based meta-learning. By using warp-layers, which change both activations and gradients during training, this method improves the learner's capacity to swiftly adjust to new tasks. The authors show that WarpGrad can overcome the scalability and convergence issues of previous meta-learning methods, and can scale across a variety of learning paradigms, including few-shot learning, standard supervised learning, and reinforcement learning.

The combination of meta-learning, multi-task learning (MTL), and transfer learning is covered in "Sharing to Learn and Learning to Share," with an emphasis on how these paradigms might be coupled to maximize learning performance across heterogeneous tasks. It presents the idea of Multi-modal Multi-task Meta Transfer Learning (MMMTL), a framework that combines several methods to provide stable performance, improved generalization, and faster learning. The study calls for more investigation into strategies that integrate the advantages and disadvantages of each learning strategy in order to tackle unresolved issues like task-specific knowledge retention and negative transfer.